







EXECUTIVE DOCUMENTS

OF THE

STATE OF MINNESOTA

FOR THE YEAR 1888.

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VOL. III.

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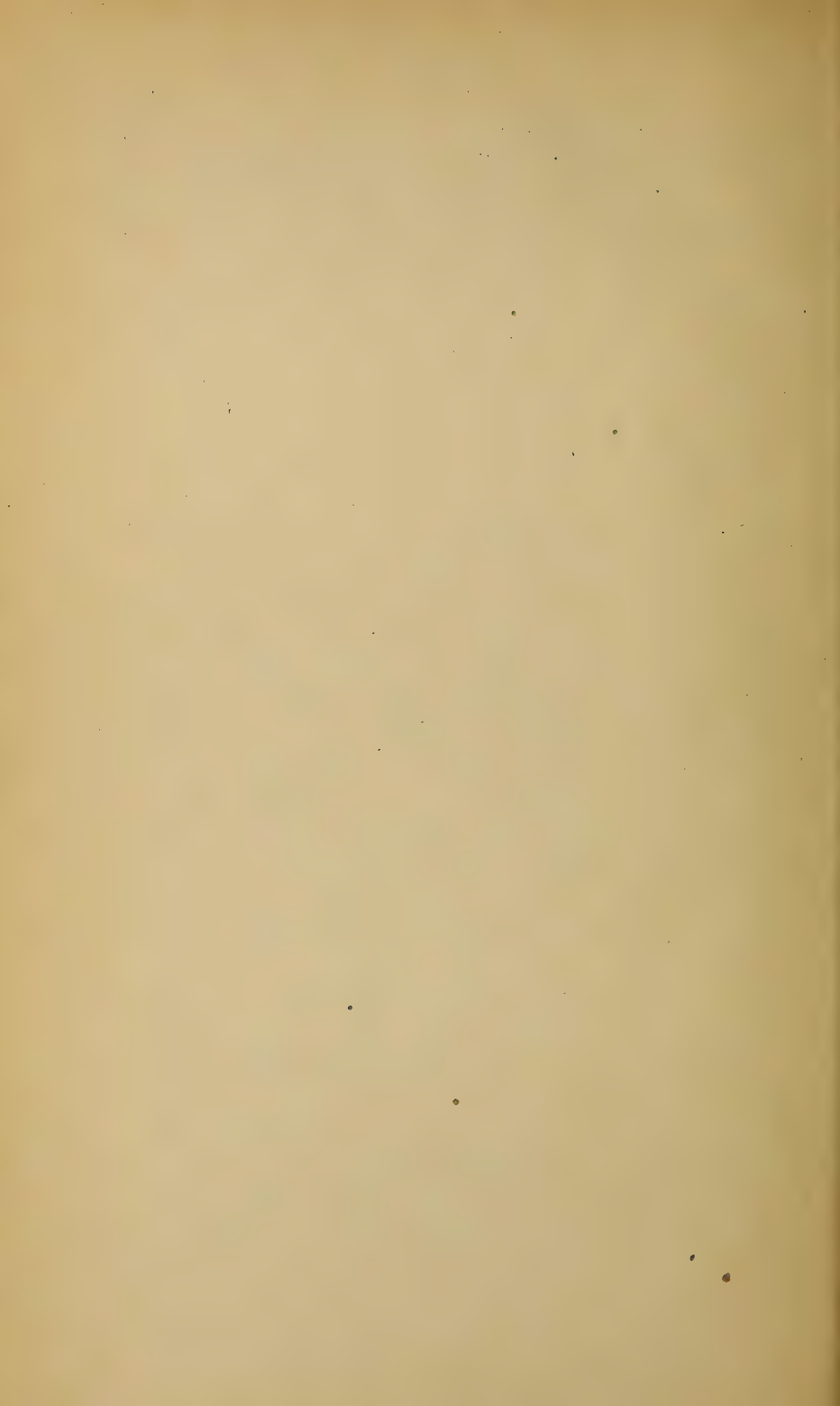


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THIRD BIENNIAL REPORT  
OF THE  
STATE BOARD  
OF  
CORRECTIONS AND CHARITIES,  
TO THE  
LEGISLATURE OF MINNESOTA.

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FOR THE BIENNIAL PERIOD ENDING JULY 31, 1888.

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ST. PAUL, MINN.:  
THE PIONEER PRESS COMPANY.  
1889.

# STATE BOARD OF CORRECTIONS AND CHARITIES.

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OFFICE AT THE STATE CAPITOL.

---

Gov. WILLIAM R. MERRIAM, *ex-officio*.

T. SIMPSON, Winona.....	Term expires January, 1890.
S. G. SMITH, St. Paul.....	Term expires January, 1890.
G. VIVIAN, Alexandria.....	Term expires January, 1891.
J. W. WILLIS, St. Paul.....	Term expires January, 1891.
C. AMUNDSON, St. Peter.....	Term expires January, 1892.
W. C. WILLISTON, Red Wing.....	Term expires January, 1892.

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## OFFICERS.

Gov. WILLIAM R. MERRIAM.....	President.
G. VIVIAN, M.D.....	Vice President.
H. H. HART.....	Secretary.
G. G. COWIE .....	Chief Clerk.

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## COMMITTEES.

ON HOSPITALS FOR INSANE—Messrs. Vivian, Simpson and Amundson.
ON INSTITUTE FOR DEFECTIVES—Messrs. Smith, Vivian and Willis.
ON REFORM SCHOOL AND SCHOOL FOR DEPENDENT CHILDREN—Messrs. Williston, Simpson and Amundson.
ON STATE PRISON AND REFORMATORY—Messrs. Willis, Smith and Amundson.
ON JAILS, LOCKUPS AND POOR HOUSES—Messrs. Amundson, Williston and Willis.
ON SOLDIERS HOME—Messrs. Simpson, Vivian and Williston.
AUDITING COMMITTEE—Messrs. Smith, Willis and Amundson.

## PREFATORY NOTE.

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The board of Corrections and Charities offers recommendations as follows:

### FORMER RECOMMENDATIONS RENEWED.

1. With reference to a school and other reformatory measures at the state prison. (Page 13.)
2. With reference to giving the prison warden discretion as to the time of paying good conduct money to prisoners. (Page 14.)
3. With reference to distinct appropriations for the three schools at Faribault. (Page 14.)
4. With reference to the length of sentences to city work-houses. (Page 14.)
5. With reference to appropriations for extraordinary repairs and improvements for state institutions. (Page 14.)
6. With reference to establishing district workhouses. (Page 14.)

### NEW RECOMMENDATIONS.

1. With reference to the residence of trustees of state institutions. (Page 33.)
2. With reference to the appropriations for this board. (Page 33.)
3. With reference to postal rights of insane persons. (Page 20.)
4. With reference to rebuilding the centre building at the Rochester hospital for insane. (Page 20.)
5. With reference to the management of the three schools at Faribault. (Page 25.)
6. With reference to establishing a state board of pardons. (Page 32.)
7. With reference to "good conduct fund" at the state prison. (Page 32.)



8. With reference to an appropriation for a prisoners aid society. (Page 33.)
9. With reference to the management of the state prison and the appointment of prison officers. (Page 33.)
10. With reference to extending the parole system to the state prison. (Page 33.)

#### CONCURRENT RECOMMENDATIONS.

The board of corrections and charities concurs with the auditor of state and the public examiner in recommendations upon the following subjects:

1. Cancellation of unexpended appropriations. (Page 34.)
2. Payment of miscellaneous receipts of state institutions into the state treasury and the re-appropriation of the same. (Page 34.)
3. A standing annual appropriation for current expenses of state institutions. (Page 34.)
4. Payment of special appropriations on expense lists. (Page 35.)
5. Special appropriations for extraordinary repairs and improvements for state institutions as previously recommended by this board. (Page 35.)
6. The appointment of institution treasurers for the state soldiers home and the state reformatory. (Page 35.)

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## AN ACT

### TO ESTABLISH A STATE BOARD OF CORRECTIONS AND CHARITIES FOR THE STATE OF MINNESOTA.

*Be it enacted by the Legislature of the State of Minnesota:*

SECTION 1. The governor, with the advice and consent of the senate, shall appoint six (6) persons, not more than three (3) of whom shall be from the same political party, who shall constitute a state board of corrections and charities, to serve without compensation, their traveling expenses only being defrayed by the state; two (2) of whom, as indicated by the governor upon their appointment, shall serve for one (1) year, two (2) for two (2) years, and two (2) for three (3) years; and upon the expiration of the term of each, his place, and that of his successor, shall, in like manner, be filled for the term of three (3) years. The governor shall be *ex-officio* a member of said board and the president thereof. Appointments to fill vacancies caused by death, resignation or removal before the expiration of such terms, may be made for the residue of terms in the same manner as original appointments.

SEC. 2. The state board of corrections and charities shall be provided with a suitable room in the state house. Regular meetings of the board shall be held quarterly, or oftener if required. They may make such rules and orders for the regulation of their own proceedings as they may deem necessary. They shall investigate the whole system of public charities and correctional institutions of the state, examine into the condition and management thereof, especially of prisons, jails, infirmaries, public hospitals and asylums; and the officers in charge of all such institutions shall furnish to the board, on their request, such information and statistics as they may require; and to secure accuracy, uniformity and completeness in such statistics, the board may prescribe such forms of report and registration

as they may deem essential; and all plans for new jails, lockups, and infirmaries shall, before the adoption of the same by the county or municipal authorities, be submitted to said board for suggestion and criticism. The governor, in his discretion, may, at any time, order an investigation by the board, or by a committee of its members, of the management of any penal, reformatory or charitable institution of the state; and said board, or committee, in making any such investigation, shall have power to send for persons and papers, and to administer oaths and affirmations; and the report of such investigation, with the testimony, shall be made to the governor, and shall be submitted by him, with his suggestion, to the legislature.

SEC. 3. The said board may appoint a secretary and a clerk, whose salaries they may establish and determine; and there is hereby appropriated, from any funds in the state treasury not otherwise appropriated, for the expenses of the said board the sum of five thousand (5,000) dollars or so much thereof as may be necessary for each year ending July thirty-first (31st), one thousand eight hundred and eighty-eight (1888), and July thirty-first (31st), one thousand eight hundred and eighty-nine (1889). All accounts and expenditures shall be certified as may be provided by the board, and shall be paid by the state treasurer upon an order from the auditor of state.

SEC. 4. The state board of corrections and charities shall, every two (2) years, make a full report of all their doings during that period, stating in detail all expenses incurred, and showing the actual condition of all the state and county institutions, and making such suggestions as they may deem advisable, of which report two thousand (2,000) copies shall be printed for the use of the legislature, and one thousand (1000) copies for the use of the board.

SEC. 5. Whenever the governor shall deem it advisable and expedient to obtain information in respect to the condition and practicable workings of charitable, penal, pauper and reformatory institutions in other states, he may authorize or designate any member or members of said board, or the secretary thereof, to visit such institutions in operation in other states; and by personal inspection to carefully observe and report to said board on all such matters relating to the conduct and management thereof as may be deemed to be interesting, useful, and of value to be understood in the government and discipline of similar institutions in this state.

SEC. 6. No member of said board, or their secretary, shall be either directly or indirectly interested in any contract for building, repairing, or furnishing any institution, poor house or jail which by this act they are authorized to visit and inspect; nor shall any officer of such institution, jail or poor house be eligible to appointment on the board hereby created.

SEC. 7. This act shall take effect and be in force from and after its passage.

Approved March 2, 1883.

Amended March 3, 1885.

Amended March 5, 1887.

Vol. III—2.



# BY-LAWS

## OF THE

### STATE BOARD OF CORRECTIONS AND CHARITIES OF MINNESOTA.

---

ADOPTED AUG. 7, 1883; REVISED FEB. 2, 1886.

---

#### I. OFFICERS.

The officers of this board shall be a president (the governor, *ex-officio*), a vice president, a secretary and a clerk.

The vice president shall be elected at the annual meeting, and shall act in the absence of the president.

The secretary shall hold office during the pleasure of the board. He shall receive such salary as the board may determine from time to time, besides his necessary traveling expenses. His duties shall be:

1. To be present at all meetings of the board and keep record of the same.
2. To conduct the correspondence of the board.
3. To devise and execute a proper system of statistics for the institutions subject to the inspection of the board.
4. To study diligently the whole subject of corrections and charities, with reference to the present and future interests of the State of Minnesota.
5. To prepare the biennial report to the legislature, subject to the approval of the board.
6. To perform such other duties as the board or president may direct.

The clerk shall hold office during the pleasure of the board, and shall receive such salary as the board may determine from time to time. He shall perform such duties as may be assigned him by the president or secretary of the board.

## II. MEETINGS.

The regular meetings of the board shall occur on the first Tuesdays of January, April, July, and October in each year; provided, that the president of the board may postpone any quarterly meetings at his discretion, not exceeding four weeks.

The April meeting is hereby designated as the annual meeting.

Special meetings may be held at the call of the president of the board; or, on written request of any two members, at the call of the secretary.

At special meetings no final action shall be taken on any subject not specified in the call for said meeting, unless all the members be present.

Meetings shall be held in the office of the board at the capitol, when not otherwise ordered.

## III. ORDER OF BUSINESS.

1. Reading the minutes of preceding meetings.
2. Report of secretary.
3. Reports of committees.
4. Communications.
5. Unfinished business of last meeting.
6. Miscellaneous business.

## IV. COMMITTEES.

At the annual meeting, or as soon thereafter as convenient, the president of the board shall appoint the following standing committees, to be composed of three members each: One on the hospitals for insane; one on the institute for defectives at Faribault; one on the reform school and school for dependent children; one on the state prison and reformatory; one on jails, lockups and poorhouses; one on the soldiers home and plans of buildings, and an auditing committee; which committees shall report at the regular meetings of the board, and serve until their successors are appointed.

## V. FINANCES.

All accounts for expenses of the board, except the salaries of the secretary and clerk, shall be certified by the auditing committee, or by the governor, and an itemized record made thereof.

## VI. VISITING PUBLIC INSTITUTIONS.

The charitable, penal and reformatory institutions supported by the state, viz.: the hospitals for the insane, the school for the deaf, the school for the blind, and the school for the feeble minded at Faribault, the state public school at Owatonna, the state soldiers' home and the state prisons, shall be visited at least quarterly by the secretary, and at least annually by each member of the board.

County jails, hospitals and poor houses shall be visited annually, if practicable, by the secretary or some member of the board.

City and village lockups and private charitable institutions shall be visited as often as convenient.

## VII. AMENDMENTS.

These by-laws may be amended by a vote of four members at any regular meeting.



# THIRD BIENNIAL REPORT

## OF THE

### State Board of Corrections and Charities.

---

OFFICE OF THE STATE BOARD  
OF CORRECTIONS AND CHARITIES, }  
ST. PAUL, MINN., Oct. 31, 1888. }

*To the Legislature of the State of Minnesota:*

The statute requires that "the state board of corrections and charities shall, every two years, make a full report of all their doings during that period, stating in detail all expenses incurred, showing the actual condition of all the state and county institutions, and making such suggestions as they may deem advisable." Accordingly, we have the honor to submit our third biennial report.

In our first biennial report we offered nine recommendations, six of which were adopted by the legislature. In our second biennial report we made six additional recommendations, of which three were adopted (one partially), making a total thus far of fifteen recommendations, of which nine have been adopted. The six recommendations which have not yet been adopted still seem to us wise, and we think that further consideration will lead to their adoption by the legislature, and we therefore renew them, as follows:

1. That a prison school be established at Stillwater, under the direction of the warden and inspectors. (See our report of 1884, p. 16, and 1886, p. 27.)

2. That the prison warden be authorized in his discretion to retain a portion of any prisoner's good time money on his discharge and to pay the same in installments or in one sum, provided that no part of such good time money shall be retained by the warden longer than six months. (Report of 1886, p. 27.)
3. That separate appropriations be made for each of the three schools at Faribault. (Reports of 1884, p. 27, and 1886, p. 38.)
4. That sentences to city workhouses for a shorter period than ten days be prohibited, and that provision be made by law for cumulative sentences to work houses, increasing with each repeated conviction for the same offence. (Report of 1886, p. 44.)
5. That a special annual appropriation amounting to about one per cent of the original cost of buildings and lands, as shown by the official inventories, be given to each state institution for "extraordinary repairs and improvements." (Report of 1886, p. 39.)
6. That steps be taken for the adoption of a district workhouse system, under which all minor offenders, when sentenced, shall be sent to the workhouse, serving for several adjacent counties. (Report of 1884, p. 29. See also special report of Mr. H. R. Wells, of this board, in the appendix.)

#### THE WORK OF THE BOARD.

The state board of corrections and charities has now entered upon its sixth year. Its work has settled down into pretty definite lines.

The system of accounts begun two years ago in this office has been perfected. Monthly reports are received from each institution and the classification of expenses is carefully revised, to insure accuracy. Quarterly statements are published which furnish prompt, accurate information as to the operation of these institutions. These quarterly statements furnish on a single page, every three months, information which was formerly scattered through the biennial reports of the several state institutions, the auditor of state, the state treasurer, the public examiner and the state board of corrections and charities, and was published from three to six months after the close of the biennial period.

A set of double entry books is kept by the secretary of this board in which the accounts of all the institutions are brought together. These books are so kept that it is possible to ascertain

readily, the cost of maintaining the state institution for any period long or short, and a statement is rendered at the close of each quarter, showing the expense per inmate of each institution for the year ending with that quarter, and also for the corresponding year next preceding. In this way it is not necessary to wait for the end of the fiscal year, in order to ascertain how the expenses are running.

These quarterly statements serve a double purpose; on the one hand they afford that publicity which informs the public of the operations of our public institutions and protects the officers from the vague suspicions which sometimes float in the public mind, that the institutions are not properly conducted. On the other hand, they furnish to the trustees and officers of the institutions, current information which is of great assistance in economical administration. In some cases the institutions do not classify their own accounts but adopt the classification made up in this office.

#### RELATIONS TO OTHER BOARDS.

We wish to acknowledge the courtesies which have been extended to this board by the boards of trustees and officers of the state institutions. Our inquiries for information have been promptly answered. In visiting the institutions we have had every opportunity for acquiring information. During the past two years nearly all of the boards of trustees have called upon us officially for advice or information and in many cases have deferred to our suggestions. Although the law does not require that plans for state buildings shall be submitted to this board, it has been consulted with reference to the plans for buildings at the Fergus Falls and Rochester hospitals for insane, the reformatory at St. Cloud, the state prison, the reform school, the school for dependent children, the school for feeble-minded children and the soldiers' home.

It has been the policy of this board to work, as far as possible, by co-operation rather than coercion, and we have usually found the officers of the state establishments ready to act upon well-considered suggestions.

#### JAILS AND LOCKUPS.

During the past two years this board has approved plans for county jails in Olmsted, St. Louis, Aitkin and Isanti counties.



Plans were submitted for a jail in Mille Lacs county but the building of the jail was postponed on our advice. Rock and Morrison counties have built jails without consulting this board, as required by law. The Rock county jail is located in the basement of the beautiful new court house and is unsatisfactory in every respect, being deficient in light, ventilation and facilities for classification. It will be a public nuisance from the outset. The Morrison county jail has not yet been inspected.

The new county jails at Fergus Falls, Red Wing and Rochester built on plans suggested by this board, are warmly commended by all who see them. The new county jail at Duluth is to be built on the same general plan.

The board has been consulted during the past two years with reference to plans for new lockups at Minneapolis, Duluth, Sauk Centre, Dundas and Princeton. Thus far, the one at Brainerd continues to be the best one in the state. A new lockup has been built at Stillwater which is much superior to the average, but it is neither as convenient nor as satisfactory a lockup as that at Brainerd.

#### COUNTY POOR HOUSES.

Plans have been submitted for new poorhouses in Cottonwood and Becker counties. In accordance with the advice of this board, the commissioners of Becker county have sold their large poor farm and have located the new poorhouse in the outskirts of Detroit City. The poorhouse is well planned and is the best small poorhouse in the state. Plans were submitted for the Cottonwood county poorhouse in June, 1887. The county has but 6,000 inhabitants and has had, until recently, a very low poor rate. The commissioners were advised not to build a poorhouse, none being needed in such a county. The plans submitted were condemned as being unfit for use. The commissioners, therefore, delayed building for a year and then built on revised and improved plans, but the building is inferior in plan and construction. The poorhouse will prove an expensive luxury to Cottonwood county.

#### STATISTICS.

We desire to call attention to the statistical tables contained in the report of our secretary.

These tables have been prepared with great care, with a view to make each table directly useful. Those who take the trouble to examine them will find many of them interesting as well as useful.

This board aims to act as a fly-wheel to the machinery of the state institutions, to keep it running steadily, smoothly and efficiently. It occupies an independent position, friendly to all of the public correctional and charitable institutions of the state but dependent upon none. It is its office to see that the claims of the institutions receive fair and equitable consideration at the hands of the legislature, and to see that the interests of inmates of these institutions are faithfully preserved. Much of its work is done through friendly suggestion, or, in some cases, kindly admonition to trustees, superintendents, county commissioners, sheriffs, jailors and poorhouse overseers of which the public knows but little.

# THE STATE INSTITUTIONS.

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## THE HOSPITALS FOR INSANE.

The hospitals for insane show a steady increase of the population, amounting, on an average for the past ten years, to more than ten per cent per year. There were in the two hospitals, Oct. 31, 1887, 1,641 patients, and Oct. 31, 1888, 1,773. The average number for the three months ending Oct. 31, 1887, was 1,647, and the average number for the three months ending Oct. 31, 1888, was 1,784.2, so that the increase for the last twelve months has been less than the average.

The number of insane in our state hospitals has been doubling every seven years. The insanity has increased faster than the population increased, and this experience accords with that of other states. The proportion of insanity in Minnesota is still only a little more than half that of the New England states, and considerably less than that of Wisconsin and Illinois.

The question has been raised whether it is good policy for the state to multiply great establishments for the insane. The state of Wisconsin has abandoned that policy and has already built thirteen county asylums, which are partially supported and controlled by the state. This county asylum system has some great advantages, in that it allows more freedom and greater variety of occupation for the inmates, and avoids maintaining the insane patients at a great distance from their homes. County insane asylums are maintained at less expense than state hospitals for the insane, being of cheaper construction and the officers being paid lower salaries. There are, however, some serious difficulties in establishing this system in a state like Minnesota. The Wisconsin system is founded on the principle of charging back the maintenance of insane persons to the counties. Since the counties must take care of their patients at home or abroad, there is an inducement to counties to build and maintain institutions, which is lacking in this state under the present law, whereby all insane persons are made a charge upon the state.



If the county system were to be adopted in this state, the burden of building county asylums would fall first upon Hennepin and Ramsey counties. It would be manifestly unjust to these counties to make them build and maintain county asylums, unless a corresponding charge were made by the state upon other counties, whose insane are maintained at state expense. This would involve a radical change in the existing statutes.

The Wisconsin system seems to be working well. It has not yet been adopted, however, by any state except Wisconsin. There are many states, which, like Illinois, Ohio and New York, have many insane in almshouses. The Wisconsin system is especially adapted to such states. It would probably be well for Minnesota to wait until the system has been tested by some of these other states, before making so radical a departure, especially in view of the fact that the cost of maintaining patients in our state hospitals is little, if any greater per capita than that of maintaining paupers in almshouses, while we have no insane in the almshouses.

#### POSTAL RIGHTS OF INSANE PERSONS.

The legislature of 1887, passed an act "to place the inmates of insane asylums under the protection of the laws, by securing to them free postal rights." This law provided that each insane person should have the privilege of choosing one person outside with whom he should have free correspondence, without supervision by the officers of the hospital, such letters to be placed in a mail box and removed by an employe of the post-office.

This law has proved a dead letter. Notices were posted in the wards of the hospitals, as required by law. The attorney general gave an opinion that the superintendents were not required, under this act, to furnish postage stamps for such correspondence, but that the insane persons must furnish their own postage stamps. Also that it was the duty of the superintendent to notify the postmaster that such a mail box had been provided at the hospital and request him to see that the letters were removed. Superintendent Bartlett so notified the postmaster at St. Peter, but the postmaster having no funds or authority to appoint any person to remove such letters, nothing was done about it.

The board of corrections and charities had no part in securing this legislation, believing that the superintendents could be trusted to supervise the correspondence of insane persons, but

such a law having been placed upon the statute books, we believe that it ought to be made operative, and that the law should be so amended that its purpose can be secured.

#### ST. PETER HOSPITAL.

During the past two years the kitchen has been thoroughly overhauled. The detached ward for women has been completed and occupied, and proves to be a very satisfactory building, except that the need is felt for several small rooms in connection with it. It is proposed to raise the roof and improve the appearance of the north detached ward. This ought to be done, as the present appearance of that building is not satisfactory. The proposed change will increase the available room in the institution more than enough to compensate for the cost of the improvement. The warehouse appropriation proved insufficient for a satisfactory building. With nearly 1,000 patients, there is still no satisfactory provision for the storage and handling of supplies.

#### THE ROCHESTER HOSPITAL.

At the Rochester hospital the detached ward for men has been occupied and proves in every way a satisfactory building. The kitchen and a large dining room are on the first floor; an arrangement which is a great improvement on the old plan of basement kitchens.

The sewerage question at Rochester is assuming serious proportions. It will probably be necessary to adopt some system of disposing of the sewerage upon the surface, probably by using a process of filtration through settling tanks.

The board of trustees asks once more for an appropriation to re-construct the centre building. Four years ago an appropriation was made for this purpose, but was vetoed for lack of funds. This improvement is an imperative necessity. Should a second holocaust occur, like that at St. Peter in 1881, the legislature could not escape the responsibility for a calamity which has so often been prophesied. In our judgment this appropriation ought to be granted, whatever else may fail.

## SOLDIERS' HOME.

The legislature of 1887 made provisions for the erection of a state soldiers' home, which has been located at Minnehaha Falls in the city of Minneapolis. The citizens of Minneapolis donated a magnificent site overlooking the Mississippi river and the city of St. Paul has located a park directly across the river. Temporary buildings were secured and the soldiers' home was opened November 19, 1887. Although the buildings are old and lacking in conveniences, they have been made very comfortable and home-like. It is a fact worthy of note that the cost per capita of heating these old and leaky buildings, by stoves, has been less than the cost of heating the hospitals for insane with steam heating apparatus.

Eighty-three old soldiers have been admitted. Sixty were remaining Oct. 31, 1888. The legislature appropriated \$50,000 for building, with which two cottages, with engine, boiler house and laundry are now in process of erection. These buildings are of a very handsome and permanent character, being constructed of pressed brick, with polished granite columns. The buildings are being thoroughly constructed, with every convenience.

The report of the secretary of the board of trustees, up to Aug. 1, 1888, shows 112 applications for admission, of which 84 have been granted and 14 are now pending. The secretary states further that owing to lack of room in the home, many who were eligible for admission were receiving temporary relief at their several homes. This would make a total of 143 cases that had been brought to the knowledge of the board of trustees, in the year of the institution. The board was giving outside relief, Aug. 1, to 315 cases, and at least 131 others had received more or less relief; but were not then on the roll, making a total of 446 cases in sight. Of these a large portion are men who have families, 315 relief cases on the roll are reported to average four persons to each application. It is not desirable, unless in exceptional cases, to receive married men into the home. If one-half of the 446 men who have received aid from the relief fund were counted eligible for admission to the soldiers' home, it would give 223 men. There are now in the home 60 men and 13 absent on leave, making a total of less than 300 men who might by any possibility be considered eligible at the present time. It would seem advisable, therefore, to await developments, before



arranging for so large a plant as one having a capacity of 1,000 men. The New York home contains less than 1,000 men.

The United States congress has passed a bill granting \$100 per year to each soldier maintained in the state soldiers' homes. With this assistance the board of managers estimate that they will be able to provide for the current expenses of the home with the \$20,000 of standing appropriation, provided by the last legislature. In view of the fact that the board is authorized to transfer surplus funds from the soldiers' relief fund to the soldiers' home fund, and in view of the appropriation of \$100 per year made by the general government, the present standing appropriation will be amply sufficient.

The legislatures of New York and Illinois have made a tender to the general government of their state soldiers' homes, with the proviso that whenever they shall cease to be used as soldiers' homes, the property shall revert back to the state. This action is based upon the theory that the care of the old soldiers belongs properly to the general government, and the several states take it up simply because the general government failed to make adequate provision. A tender of this kind puts those states in a position to avail themselves immediately of any congressional legislation looking to this change. The following is the joint resolution adopted by the thirty-fifth general assembly of the state of Illinois:

"WHEREAS, The thirty-fourth general assembly did appropriate the sum of \$200,000 for the erection of a soldiers and sailors home in the State of Illinois, to the end that all needy and destitute old soldiers and sailors residing in the State of Illinois should in their old age, be amply provided for, and to the end that none of said destitute and needy old soldiers and sailors, in their declining years, shall come to want; and

"WHEREAS; Said appropriation has been expended in the procurement of suitable grounds near the city of Quincy, and erection suitable and proper as well as convenient and substantial buildings for said home; and

"WHEREAS, There is a growing and increasing demand for said home, both for the care of the old soldiers residing in the state and those residing in adjoining states, said demand being for the care of such old soldiers as can not now be provided for under the existing pension laws of the United States; and

"WHEREAS, We believe it is the duty of the United States government to see to it that all old soldiers and sailors are protected

from want, and that they be provided with all the necessaries of life, and to the end that all old soldiers and sailors outside of the State of Illinois, as well as those who reside within her borders, may enjoy the benefit of said home, therefore be it

*“Resolved, by the Senate, the House of Representatives concurring herein, That the trustees of said soldiers and sailors home be, and they are hereby directed, at the meeting of the next congress of the United States, to tender said soldiers and sailors home to the United States government, upon condition that the United States government conduct said home in all respects for the best interests of the worthy and needy soldiers and sailors so long as said home shall be needed for the benefit of old soldiers and sailors for the United States in all wars in which said soldiers and sailors were engaged for the general government prior to this time, and when said home shall no longer be needed or used for said home for such soldiers and sailors aforesaid, then said home, and the appurtenances thereunto belonging, shall revert to the State of Illinois: Provided, that nothing herein contained shall interfere with the erection of such buildings as the thirty-fifth general assembly may direct erected, or for the necessary running expenses until said home is accepted by the general government. And provided further, that said trustees are instructed not to receive as inmates to said home any soldiers or sailors who are not citizens of Illinois until said home is secured as aforesaid by the United States government.”*

#### THE MINNESOTA INSTITUTE FOR DEFECTIVES.

The legislature of 1887 re-codified the laws governing the state institutions at Faribault, grouping the schools for the deaf, blind and feeble-minded under the collective name of the Minnesota Institute for Defectives. The school for the deaf, under the direction of Supt. Noyes, has reached a high degree of efficiency, as shown by the position taken by the graduates of this school in the national deaf mute college at Washington. The board of directors asks for an appropriation for a detached dormitory building. The present rooms, in the main building, are inadequate, and additional dormitory accommodations are necessary, there having been no increase in this direction for ten years past.

This board has looked with anxiety upon the fourth story dormitories at the school for the deaf for several years. In case of

fire there would be great danger of loss of life. Deaf children are more exposed to danger in this respect than blind children, for the reason that blind children are accustomed to find their way about in the dark, but deaf children are accustomed to depend upon their eyes. Should the building be filled with smoke it would be impossible to communicate with the children. The board of directors passed a resolution some years ago, ordering the attic dormitories vacated, but the order has been inoperative for lack of room. Any changes to be made at the present time should provide for vacating these attic sleeping rooms.

The board of directors ask for \$1,500 to provide hospital rooms for contagious diseases. The present room for that purpose is entirely unsuitable, being adjacent to the girls' sewing room and the employes quarters. It is a question, however, whether it would not be better to erect a cheap wooden building entirely detached from the school buildings.

#### SCHOOLS FOR THE BLIND AND FEEBLE-MINDED.

The school for the blind is efficiently managed. No considerable appropriations are asked for this school. The school for the feeble-minded has occupied its main building and the new south wing will soon be ready for use. During the past two years a large amount has been expended from the current expense fund in reconstructing the plumbing of these buildings. Some four or five thousand dollars have been thus expended. It is unfortunate that such extensive repairs should be necessary in a comparatively new building. The institution is having a rapid growth, which has necessitated a good deal of extraordinary expenditures from the ordinary expense fund. We believe, however, that the per capita of the past two years is excessive, having been \$287 the first year and \$262 the second year of the biennial period. Our estimate for the coming two years is at the rate of \$200 per pupil. In order to keep the expense within this amount, however, it will be necessary for the legislature to make a special appropriation for furnishing the new building, and a small appropriation for extraordinary repairs and improvements.

Experience with this building justifies the opposition which this board has made to the use of basements for domestic purposes in public institutions. A serious epidemic of diphtheria during the past two years has caused considerable anxiety. The



basement in the north wing is so damp that leather soon becomes covered with fungus, and the superintendent now recommends that a sub-basement be excavated and that a drain be extended around the whole foundation. This improvement is probably necessary as a sanitary precaution. The new south wing has a sub-cellar under the whole building, which is expected to prevent such trouble. The better plan, however, would have been to have avoided the use of the basement for domestic purposes.

The administration of this school is thorough and efficient. There has been a steady increase of the inmates of the custodial class. Experience proves that as the children grow up, very few of them can be restored to homes; the majority of them prove permanent wards upon the state.

The last legislature appropriated \$45,000 for a detached building for inmates of the custodial class. The board of directors sent Steward Barron to visit the schools for the feeble-minded, through the country. Mr. Barron returned fully convinced that the permanent provision for the custodial class should be in buildings placed at some considerable distance from the school proper, as is the case at the great institution at Elwyn, Penn. After looking the matter over, the board of directors decided to expend the \$45,000 appropriated by the legislature, in the construction of a south wing in two sections, to correspond to the north wing already constructed. This change of plan was brought to the attention of this board; and while it was unwilling to share any responsibility for such a change of plan, the board of corrections and charities did not feel called upon to enter any protest, believing that in the end the proposed change would be more to the interest of the state and the institution. The new south wing is arranged with reference to providing for the custodial class of girls, separate from the other children in the institution, and also with a view to the ready adaptation of this part of the building to the purposes of the school department, whenever in the future outside provision shall be made for the custodials.

In the summer of 1888, the secretary of this board prepared an elaborate report of the workings of the institutions at Faribault. This report was too full to be printed in our biennial report. In view of this report together with the personal observations of members of this board, the state board of corrections and charities respectfully recommends that the school for the feeble-minded children be placed under a separate management from that of the schools for the deaf and blind, and that there be

a board of five directors to control the schools for the deaf and the blind, and a board of five directors to control the school for the feeble-minded. The reasons for the proposed change are several. This board has elsewhere recommended legislation providing that in no case shall a majority of the board of management of any state institution, reside in the county where the institution is located. Four of the directors of the Minnesota institute for defectives are residents of Rice county. These gentlemen, from their long service in this capacity, have acquired experience which is exceedingly valuable to the state. The proposed change would admit of the continuance of all of these members upon one or the other of the two boards. In the second place the school for the feeble-minded belongs to a different class of institutions from the other two schools. The schools for the deaf and blind are distinctively educational in their purpose, while the school for the feeble-minded is distinctively charitable. The scale of expenditure and the details differ very widely. The tendency of associating this institution under one management in the past has been to increase the expense for the feeble-minded approximately to that of the other two schools. In the third place, with the rapid growth of the school for the feeble-minded, the work of managing the three institutions has reached a point where it is burdensome upon an unpaid board of directors. There is an immense amount of detail work which requires a great deal of time and attention. In the fourth place it is believed that there will be a gain in having an increased number of citizens of the state, who shall be intimately familiar with the workings of these institutions, and that thus the state will be profited by the proposed change.

#### STATE SCHOOL FOR DEPENDENT CHILDREN.

The state school for dependent children exists under the legal title of the state public school. The last legislature made liberal appropriations for this school, amounting in the aggregate to \$84,000. With this appropriation a main building has been erected, containing offices, living rooms for superintendent, teachers and other employes, kitchen and dining rooms for the whole institution; there has also been erected a handsome school building, containing three school rooms and a kindergarten room, besides recitation rooms, at a cost, for the main building of \$20,000, school house \$7,600, a wooden hospital building

\$2,500, while \$13,000 have been expended on a steam plant, laundry and steam heating apparatus. The grounds have been graded and otherwise improved. The whole aspect of the institution is very pleasing on account of the departure from the rigid lines and consequent stiffness which are usually apparent in buildings of public institutions.

The inmates have increased more rapidly than the facilities provided. Children have been placed in homes with great caution, which is, in our judgment, a very wise course, for the reason that a few cases of injudicious work would tend to create a prejudice against the institution. The rapid increase in the number of inmates has caused a deficit in the current expenses. This deficit was caused partly by the purchase of farm machinery and other extras from the current expense fund, at the outset of the school, but so far as we can judge is not due to extravagance in the management. The quarterly reports of this board show a rapid decrease in the per capita expense, from quarter to quarter, and the cost for food is surprisingly low. This is due, apparently, to two causes: First, the free use of farm products; second, the keeping of a number of excellent milch cows and the substitution of milk, as an article of diet, for meat, almost entirely. In our judgment, this example might be profitably followed in all of the institutions for children. The use of meat as an article of diet for young children is not conducive to health, while at the same time this article of diet is expensive.

#### REFORM SCHOOL.

The last legislature passed a bill establishing a commission to re-locate the reform school. This commission selected a site near the city of Red Wing. The law provided that the board of managers should take steps to remove the school to the site selected by this commission, but did not appoint a time for said removal, and up to the present time no steps have been taken in that direction. The reasons assigned by the board of managers are, first; that the site selected is not well adapted to their purpose; second, that they have been unable to secure necessary concessions from the railroad companies in regard to the stopping of trains at the school, etc.; third, that the stagnation of the real estate market has rendered it impossible to dispose of the present reform school property for its real value.



The last legislature made no appropriation for new buildings at the state reform school. There was an appropriation of \$4,000 for repairs and improvements, but this \$4,000 remains undrawn in the treasury. The board of directors has erected a cottage to accommodate fifty boys. This is a fine building, thoroughly built with building paper, sheathing and clapboarding. The interior is finished throughout elaborately, with hard wood. The building is a model of its kind and calculated to last for twenty years or more. There is no question but that additional accommodations were a necessity. This building is valued by the secretary of the board of managers at about \$7,000. We can see no justification, however, for the erection of such a building as this in view of the fact that the legislature had passed a law for the removal of the institution. A temporary building could have been erected for \$2,000 or \$2,500, which would have answered the purpose for a year, or if necessary, for two or three years. There is still in use at the St. Peter hospital, a temporary building which was erected after the fire of 1881, at a cost of about \$2,500. This building accommodated about fifty patients and is now used for employes' quarters. It is quite a comfortable building.

The board of directors in submitting their estimates for the next two years, estimate for an average of only 250 pupils, for the fiscal years ending July 31, 1890 and 1891. The school has now 240 pupils; so that it will be necessary for the board to send the inmates out much more rapidly than heretofore. We believe that this change of policy is in the right direction. A large portion of these children, especially the younger ones, can be safely placed in homes after a very short detention.

In view of the proposed removal of the state reform school we recommend that no more new buildings be erected on the present site.

#### THE STATE PRISON.

The most gratifying fact with reference to the state prison is the very slow increase in the number of inmates. There were in the state prison Oct. 31, 1886, 381 prisoners; Oct. 31, 1887, 418 prisoners and Oct. 31, 1888, 403 prisoners, a net increase in two years of only 22 prisoners, or five per cent. There are at the present time about 200 empty cells in the state prison.

The administration of the state prison for the past two years has been, on the whole, satisfactory. The discipline has been good. The prisoners have been better fed than heretofore and well cared for. A small paper called the "Prison Mirror" has been published in the prison, the editorial and typographical work being done by convicts, under the supervision of the warden.

The last legislature passed a bill annulling the contract for the labor of the convicts. This law went into effect the first day of September, 1888. It is exceedingly unfortunate that the legislature in terminating the contract system of labor did not provide one to take its place. An appropriation of \$25,000 was made for the purchase of tools and machinery, but this sum was, in the judgment of the inspectors, insufficient, and remains unexpended. The problem of employing prisoners on the state account plan successfully is a difficult one, and has been solved satisfactorily in only a few prisons in the United States. The most successful public account prison, financially, is the Detroit house of correction, which pays an income of from \$30,000 to \$40,000 annually into the city treasury, after paying all expenses. The house of correction at Milwaukee and the city workhouse of Cleveland are nearly self supporting on the public account plan. The most successful public account prison, from a disciplinary point of view, is probably the Eastern penitentiary at Philadelphia, Pa., where the convicts are employed at a labor without power machinery. In this case, however, the labor has not been largely remunerative, the prisoners earning not more than a third of the expenses. The state account system prevails also in a number of reform schools, in the state prison at Ionia, Michigan, the state penitentiary at Alleghany, Pa., the state prisons of California and in part in the prison at Columbus, Ohio. The contract system has been annulled in the prisons of several other states. Thus far no very satisfactory results have been attained. In Wisconsin the contracts have been abolished by law, but the former contractors continue to work the prisoners on the old plan, by a tacit understanding, without any contract, paying monthly into the prison treasury, at the former rate.

No more important question will confront the legislature than this of convict labor. The financial interests are considerable, since the state heretofore has derived an annual income of \$40,000 to \$50,000 from convict labor. But the interests of the

prisoners are even more important. It is universally conceded that the reformatory treatment of prisoners is impossible without systematic and productive labor. The successful organization of such labor is a problem of considerable difficulty as is demonstrated by the long line of failures. In the judgment of this board, it is essential as a preliminary to success in this endeavor that the prison should be completely separated from all liability to political influence. To this end we recommend that the board of inspectors be enlarged, that the warden be made an appointee of the board of inspectors and hold office subject to their pleasure, and that all subordinate officers be appointed by the warden.

#### THE ST. CLOUD REFORMATORY.

The legislature of 1887 passed an act making the second state prison, which had already been located at St Cloud, a reformatory for young men, and organizing the institution as such.

The managers commenced their work by appointing Hon. D. E. Myers of St. Cloud, as superintendent of the reformatory, assigning to him the duty of superintendent of construction until such time as the institution should be ready to be opened.

It is the hope of the board of managers to make this the model institution of its kind in the United States.

Mr. J. W. Stevens, of St. Paul, was appointed architect. The board made a tour of the reformatories of the country with a view to informing themselves as to their duties on deciding upon the general plans for the proposed buildings.

The legislature appropriated \$100,000 for carrying out the purposes of the act. The board of managers had plans prepared for the buildings to accommodate about 400 inmates, but decided to so use the appropriation of \$100,000, that when it was expended the buildings should be ready to open the institution. To this end it was intended to finish only forty-eight cells and fill the rest of the cell building with temporary rooms for offices, guard rooms, employes' quarters, etc.; but subsequently it was found that this would involve an expenditure of from \$5,000 to \$10,000, which would be in the end a complete loss to the state. The board therefore decided to put in the full number of cells and ask the legislature for money to construct outside temporary wooden buildings which can be used for shops or other purposes. This plan will enable the directors to provide for about 132 men, instead of 48. The outside buildings will cost a little more than



the inside construction. The increased expenditure at the present time will be chiefly for the 84 additional cells.

The buildings erected are of the most substantial and satisfactory character. They are built of brick with granite foundation and sandstone trimmings. Those erected are kitchen, laundry, bakery, mess room, hallway and centre wing of the cell building. The steam plant is located temporarily in the basement of the kitchen. With this exception, all of these buildings will be utilized without change in the permanent plant. The plans of these buildings have been studied with great care and are believed to be unexcelled.

Superintendent Myers has given a good deal of attention to the prison labor problem. He believes that he will be able to work his prisoners profitably upon the production of paving blocks and curb stones, from the quarries belonging to the state. These articles are staple and command a steady price in the market, with a constant demand, and he expects to be able to avoid complaints from the labor organizations by selling his goods on the market at standard rates. He is confident that he will be able to secure greater earnings per man, than have been secured under the contract system.

It is expected that the reformatory will be ready to commence operations about the first of August. With the completion of one hundred and thirty two cells at St. Cloud, the state will have nearly seven hundred and fifty available cells.

In the reformatory there are four tiers of cells, each cell being 6x8 feet and eight feet high. The front of the cell is composed entirely of lattice-work, allowing free ingress of light and air. The buildings will be ventilated by the fan exhaust system, the air in the cell room being drawn through the cell, each cell having a separate flue at the top of the building. The corridors in front of the cells are fourteen feet high. The cell room is lighted by very large windows which extend to the ceiling.

The buildings are magnificently located, overlooking the Mississippi river and the city of St. Cloud. The site combines everything that is desirable for accessibility, drainage, location for buildings, and convenience of transportation.

The quarries on the property are practically inexhaustible and are reported to be of excellent quality. The granite lies in seams in such a manner as to be as easily quarried as is possible for this very hard and enduring stone.

The law should be so amended as to provide a treasurer for the reformatory.

## RECOMMENDATIONS WITH REFERENCE TO THE STATE PRISON AND THE ST. CLOUD REFORMATORY.

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We recommend that an advisory board of pardons be established, consisting of the attorney general and four members, one person to be nominated by each district judge of the state, from which nominees the judges of the supreme court shall appoint four members of the board, not more than three members to belong to the same political party.

A board of pardons will relieve the governor of much detail work, which now absorbs a great portion of his official time. It will also relieve him, in many cases, of a trying responsibility by giving him competent and authorized advisers. It is believed also that it will serve the ends of justice by affording opportunity for fuller and more systematic investigation for pardons.

We recommend that the prison warden and the superintendent of the St. Cloud reformatory be authorized to pay the good conduct fund from receipts for the sale of manufactured articles, or from receipts from convict labor, at an average of ten cents per day to each man for each working day. The rate paid to be graded from eight to twelve cents per day; the difference in the rate to be based not upon the value of the work performed, but upon the good conduct and willing disposition of the convict.

The good conduct fund has been extinguished by the abolition of the contract system. This fund has been of great benefit to discharged prisoners and has greatly simplified the discipline of the prison. Heretofore the prisoners have received about nine cents per day for each day, including Sundays. It is believed that payment should be based upon working days, and that the adoption of grades in payment will afford an additional incentive to secure faithful and conscientious labor.

The "good conduct" fund has been one of the most important features of the Minnesota state prison. Its value has been recognized in other states and efforts have been made to secure the adoption of the Minnesota law in Massachusetts. It is desirable to so establish this important feature of our prison discipline that it shall be perpetuated, whatever system of labor may prevail.

We recommend that an annual appropriation of \$2,500 be made for the prisoners' aid society to be organized under section 19 of chapter 208, of the general laws of 1887. Said appropriation to be used for paying the salary and expenses of the agent of the society and for its office expenses.

The law of 1887 provides for the organization of a prisoners' aid society by the managers of the reformatory, at St. Cloud, but provides no means to defray the expenses of such a society. The states of Iowa and Massachusetts have made appropriations for the expenses of an agency for assisting discharged prisoners, and it is believed that this small investment will pay large returns in saving the state the expense of re-arresting and re-imprisoning.

We recommend that the board of prison inspectors be increased to five members, and that the warden be made an appointee of the board, holding office subject to their pleasure, but removable only for cause, and that all subordinates be appointed by the warden.

This change is intended to enlarge the powers of the warden on the one hand, and to increase his accountability to the board of inspectors on the other, and at the same time to remove the institution as far as possible from liability to political influences.

We recommend that the parole system, with the system of grades and marks, be extended to prisoners serving their first sentences in the state prison.

The parole system is already provided for at the St. Cloud reformatory, but applies only to prisoners under thirty years of age. This system has been extended in Ohio to older convicts in the prison, and the results have been most encouraging. The system has long been in use in the prisons of Great Britain, resulting in a large increase of the proportion of prisoners reclaimed.

#### GENERAL RECOMMENDATIONS.

We recommend that it be provided by law that no board of trustees of any state correctional or charitable institution shall have a majority of its members resident in the county where any one institution under their charge is located.

We recommend that the appropriation for the state board of corrections and charities be made a permanent appropriation.



We think that the board of corrections and charities has passed the experimental stage and ought now to be established on a permanent footing like the other state boards.

#### CONCURRENT RECOMMENDATIONS.

The state board of corrections and charities, the auditor of state and the public examiner have concurred in the following recommendations to the legislature, with reference to the state correctional and charitable institutions.

1. That the state auditor be required at the close of each biennial period, to cancel all unexpended balances of appropriations which may have been left as balances at the close of the biennial period next preceding, *i. e.* all appropriations which shall have remained undrawn for the period of two years after the expiration of the biennial period, during which they became available, provided that the governor, secretary of state and attorney general may continue such balance of an appropriation in force temporarily, on recommendation of the auditor of state.

2. That the superintendents, stewards and other officers of state institutions, into whose hands such funds may come, be required to turn over to the treasurers of said institutions, at the close of each month, all cash received during the month from the sales of articles belonging to the state and all cash received for the board of inmates, with a detailed statement of the same, and that it be made the duty of the officer who shall make up the monthly expense list of each institution, to attach to the expense list, at the close of each fiscal quarter, a statement of such miscellaneous receipts for the three months preceding. That it be made the duty of the auditor of state to draw his draft on the institution treasurer for the amount so reported and to credit the appropriation for the institution with the amount, when paid over to the state treasurer.

3. That a standing annual appropriation be made for each institution for current expenses, as is now done in the case of the soldiers' home, the university and the normal schools.

The appropriations to be as follows:

Fergus Falls hospital for insane.....	\$25,000
St. Peter hospital for insane.....	140,000
Rochester hospital for insane.....	140,000
School for the deaf.....	35,000
School for the blind.....	12,000

School for the feeble-minded.....	\$50,000
State public school.....	15,000
Reform school.....	35,000
State prison.....	40,000
Total.....	<hr/> \$492,000

These appropriations to be supplemented by each legislature as may be seen to be necessary.

4. That all special appropriations for buildings, etc., be drawn from the state treasury hereafter, on monthly expense lists, in the same way in which current expense appropriations are now drawn.

5. That a special appropriation, amounting to about one per cent of the inventoried value of lands and buildings, be granted annually to each institution as a fund for extraordinary repairs and improvements.

6. That provision be made by law for an institution treasurer and the payment of accounts on monthly expense lists, in the state soldiers' home and the St. Cloud reformatory, in order that a uniform system may prevail.

The reasons for these recommendations are as follows:

1. There is an accumulation of undrawn balances of appropriations on the books of the auditor of state, which encumber his books and offer a standing temptation to the institutions to devise some excuse for using them up.

There were undrawn balances of appropriations for the correctional and charitable institutions, July 31, 1888, of more than \$250,000, after allowing for outstanding liabilities. Of this sum more than \$100,000 belonged to balances left over July 31, 1886.

2. The institutions receive sums ranging from \$300 to \$11,000 annually from the sale of manufactured articles, farm produce, junk, etc. This money accumulates and is used from time to time for current expenses, but there is no uniform practice. It seems desirable that these funds should be accounted for in a regular way and in such a manner that they will appear on the books of the auditor of state.

3. Fixed annual appropriations for these institutions would accord with the practice of the state already established with reference to other institutions. Such appropriations would guard against such contingencies as the failure of the legislature to make appropriations before the beginning of the fiscal year, as has sometimes happened in the national legislature. They





# FINANCES OF STATE INSTITUTIONS.

The following is a statement of the appropriations made for the state charitable and correctional institutions for the fiscal years ending July 31, 1887, and July 31, 1888:

## APPROPRIATIONS FOR THE YEAR ENDING JULY 31, 1887.

	Current.	Special.	Total.
Fergus Falls hospital for insane.....		\$14,280.00	\$14,280.00
St. Peter hospital for insane.....	\$150,280.00	43,000.00	193,280.00
Rochester hospital for insane.....	106,080.00	56,750.00	162,830.00
State soldiers home.....		10,000.00	10,000.00
Institute for defectives.....	85,000.00	17,500.00	102,500.00
Same (from insurance appropriation).....		412.50	412.50
School for dependent children.....	8,825.48	16,174.52	25,000.00
Reform school.....	35,000.00		35,000.00
State prison.....	75,000.00	55,000.00	130,000.00
Same (from insurance appropriation).....		1,891.04	1,891.04
Total appropriations.....	\$460,185.48	\$245,008.06	\$705,193.54
Additional receipts for board of inmates.....	1,303.54		1,303.54
Amount expended.....	\$461,489.02	\$245,008.06	\$706,497.08
	395,728.13	180,864.04	576,592.17
Balance unexpended.....	\$65,760.89	\$64,144.02	\$129,904.91

## APPROPRIATIONS FOR THE YEAR ENDING JULY 31, 1888.

	Current.	Special.	Total.
Fergus Falls hospital for insane.....		\$25,000.00	\$25,000.00
St. Peter hospital for insane.....	\$163,800.00		163,800.00
Rochester hospital for insane.....	131,040.00	1,500.00	132,540.00
Same (from insurance appropriation).....		1,572.08	1,572.08
State soldiers' home.....	15,000.00	40,000.00	55,000.00
Institute for defectives.....	90,000.00	45,000.00	135,000.00
Same (from insurance appropriation).....		987.50	987.50
School for dependent children.....	12,000.00	35,000.00	47,000.00
Same (from insurance appropriation).....		344.25	344.25
Reform school.....	40,000.00	2,754.56	42,754.56
State prison.....	73,000.00	30,000.00	103,000.00
Same (from insurance appropriation).....		1,226.17	1,226.17
Reformatory for young men.....		50,000.00	50,000.00
Total appropriations.....	\$524,840.00	\$233,384.56	\$758,224.56
Additional receipts for board of inmates.....	1,643.40		1,643.40
Amount expended.....	\$526,483.40	\$233,384.56	\$759,867.96
	493,902.50	175,219.10	669,121.60
Balance unexpended.....	\$32,580.90	\$58,165.46	\$90,746.36

Appropriations for the state institutions, being made for periods six to thirty months in advance have usually been made with a margin which has left a surplus. The following is a

## STATEMENT OF UNEXPENDED BALANCES:

	Current.	Special.	Total.
Unexpended balances, July 31, 1886.....	\$61,625.90	\$45,888.90	\$107,514.80
Unexpended balances, appropriations of 1886-87.....	65,760.89	64,144.02	129,904.91
Unexpended balances, appropriations of 1887-88.....	32,580.90	58,165.46	90,746.36
Totals.....	\$159,967.69	\$168,198.38	\$328,166.07
Deduct cash paid back to state treasury.....	67,751.34		67,751.34
Unexpended balances, July 31, 1888 .....	\$92,216.35	\$168,198.38	\$260,414.73

The balances unexpended July 31, 1888, were situated as follows:

	Current.	Special.	Total.
Appropriations undrawn.....	\$96,776.23	\$165,990.36	\$262,766.59
Cash with institution treasurers.....	37,253.74	23,535.74	60,789.48
Miscellaneous receipts not yet paid in.....	13,956.00		13,956.00
Totals.....	\$147,985.97	\$189,526.10	\$337,512.07
Deduct accounts payable and orders outstanding July 31, 1888.....	55,769.62	21,327.72	77,097.34
Net balances, July 31, 1888 (as above).....	\$92,216.35	\$168,198.38	\$260,414.73

Appropriations were made by the legislature of 1887 for the fiscal year ending July 31, 1889, as follows:

	Current.	Special.	Total.
Fergus Falls hospital for insane.....		\$25,000.00	\$25,000.00
St. Peter hospital for insane.....	\$163,800.00		163,800.00
Rochester hospital for insane.....	131,040.00	50,000.00	181,040.00
State soldiers' home.....	20,000.00		20,000.00
Institute for defectives.....	95,000.00		95,000.00
School for dependent children.....	15,000.00	35,000.00	50,000.00
Reform school.....	19,762.21	2,000.00	21,762.21
Reformatory for young men.....		50,000.00	50,000.00
State prison.....	75,000.00	30,000.00	105,000.00
Totals.....	\$519,602.21	\$192,000.00	\$711,602.21

The last legislature evidently intended to appropriate \$40,000 for the reform school, but a mistake was made in drawing the bill. The school had a surplus of \$15,474 at the close of the last fiscal year, which, with the above appropriation of \$19,762 will probably suffice, though a small deficiency appropriation will be

needed. The school for dependent children had a deficit of \$2,447.20 at the close of the fiscal year, owing to maintaining a larger number of children than was contemplated; this deficiency will probably be somewhat increased by the expenses of the year 1888-9, and a deficiency appropriation will be required.

### ESTIMATE FOR CURRENT EXPENSES.

Heretofore no combined estimate of expenses for these institutions has been made except the gross estimates of the auditor of state. The trustees and managers of the several institutions have usually submitted estimates in their annual reports. It is believed that it will be helpful to the legislature to have a combined estimate. Until now we have not had sufficient data, but the monthly reports now made to this office furnish material for reasonably accurate estimates.

There is considerable uncertainty as to the exact numbers to be anticipated in the soldiers' home, the state reformatory, and the schools for the deaf and blind. The numbers estimated for these institutions are probably too large, but it was thought best to err, if at all, on the safe side.

For the St. Peter hospital, we have estimated for fifty patients less each year than the estimate of the trustees, believing that the hospital ought not to be over-crowded. We have added fifty patients for Rochester, in 1889-90 and fifty patients for Fergus Falls in 1890-91. Our estimate per patient for the Fergus Falls hospital is higher than that of the trustees. We find that the Rochester hospital, which has always been very economically managed, spent \$5.95 weekly per patient with an average of eighty-five patients in 1879-80 and \$4.26 weekly per patient with an average of 260 patients in 1882-83. We see no reason to anticipate that the Fergus Falls hospital can do with less.

These estimates have been submitted to the superintendents, stewards and trustees of the several institutions for suggestion and criticism and no objections have been received. We believe that the estimates are as accurate as they can be made at this time; but anticipate that there will be some surplus as heretofore.

In the following estimates no allowance is made for receipts from the earnings of prisoners at Stillwater and St. Cloud, except for the good conduct fund. The prison earnings have usually been turned into the state treasury, and have not been used for



current expenses. An estimate has also been included for the good conduct fund, in both prisons, in the expectation that an allowance will be made to the convicts at about the same rate as hitherto, namely, nine cents per day.

The amount estimated per inmate for the Fergus Falls hospital, and the St. Cloud reformatory, seems large but the expenses of a new institution are unavoidably large, as is shown by experience in this and other states. When the Rochester hospital averaged 85 patients the expenses per patient were \$311 per year. The expenses of the soldiers home, averaging 34 inmates, have been \$453 the past year. When the Stillwater prison averaged 113 inmates (in 1874), the per capita expense was \$321. The Minneapolis city workhouse drew on the city treasury, for the year ending February 29, 1888, for \$22,910, being \$290 per capita for an average of 79 prisoners. The St. Paul city workhouse drew on the city treasury, for the year 1887, for \$28,323, being a per capita of \$237 for an average of 119 prisoners.

It must be noted that the estimates for the Faribault institutions are based on the average number for 365 days, which gives a rate one-third higher for the deaf and blind, and about one-tenth higher for the feeble-minded, than if they were based on the school term average.

The estimate for the state reformatory for 1889-90 is based on the present capacity of fifty prisoners. Should the capacity be increased before Aug. 1, 1889, a corresponding increase will be needed in the appropriation.

# ESTIMATE OF CURRENT EXPENSES FOR THE FISCAL YEAR ENDING JULY 31, 1890.

## Estimated Current Expense per Inmate, Exclusive of Lands, Buildings and Extraordinary Repairs.

	Fergus Falls Hospital.	St. Peter Hospital.	Rochester Hospital.	Soldiers' Home.	School for the Deaf.	School for the Blind.	School for Feeble-Minded.	School for Dependent Children.	Reform School.	Reformatory for Young Men.	State Prison.	Totals.
Salaries and wages.....	\$77.00	\$45.00	\$43.00	\$60.00	\$132.00	\$165.00	\$70.00	\$70.00	\$43.50	\$135.00	\$68.00	\$61.00
Food.....	92.00	55.00	52.00	64.00	55.00	70.00	53.00	36.00	40.00	64.00	47.00	54.00
Clothing and bedding.....	18.00	16.50	16.50	36.00	6.00	9.00	5.00	20.00	19.00	18.00	15.00	16.00
Fuel.....	56.00	25.50	26.00	40.00	37.50	52.00	26.00	36.00	20.00	21.00	16.00	25.00
Light.....	2.00	1.50	1.00	2.00	11.50	7.50	7.00	1.00	1.00	1.00	2.00	2.50
Medical supplies.....	3.00	1.00	1.00	3.00	5.50	5.00	1.00	.50	1.50	3.00	1.50	1.00
Furniture and household.....	9.00	5.50	6.00	15.00	8.00	15.00	5.00	6.00	5.00	8.00	3.00	5.00
Repairs (ordinary).....	10.00	7.50	7.50	15.00	13.00	13.00	10.00	5.00	4.50	10.00	3.00	6.00
Farm, garden and grounds.....	20.00	4.50	4.00	20.00	12.00	12.00	9.00	12.00	7.00	10.00	.....	5.00
Expenses not classified.....	13.00	7.25	7.75	20.00	17.50	35.00	13.00	13.50	9.00	20.00	8.50	9.83
Industrial training and good conduct.....	.....	.....	.....	.....	32.00	12.00	4.00	.....	31.00	32.00	32.00	8.40
Totals.....	\$300.00	\$169.25	\$164.75	\$275.00	\$825.00	\$391.00	\$203.00	\$200.00	\$185.50	\$322.00	\$196.00	\$193.73
Estimated receipts.....	.....	5.00	.50	2100.00	25.00	16.00	3.00	.....	25.50	32.00	32.00	12.43
Estimated expenses per year.....	\$300.00	\$164.25	\$164.25	\$175.00	\$800.00	\$375.00	\$200.00	\$200.00	\$160.00	\$290.00	\$164.00	\$181.30
Same per week.....	5.75	3.15	3.15	3.36	5.75	7.20	3.83	3.83	3.07	5.67	3.15	3.48
Estimated average number inmates.....	90	1,000	1,000	140	140	41	280	100	250	48	420	3,509
Total amount to be appropriated.....	\$27,000.00	\$164,250.00	\$164,250.00	\$24,500.00	\$42,000.00	\$15,400.00	\$56,000.00	\$20,000.00	\$40,000.00	\$13,900.00	\$88,900.00	\$636,200.00
Estimated expenses for school term.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Same per week.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Estimated average number for school term.....	.....	.....	.....	.....	192	55	290	.....	.....	.....	.....	.....

*a* Amount expected from the general government. *b* This amount is provided by standing appropriations already made.

## ESTIMATE OF CURRENT EXPENSES FOR THE FISCAL YEAR ENDING JULY 31, 1891.

Estimated Current Expense *per Inmate*, Exclusive of Lands, Buildings and Extraordinary Repairs.

	Fergus Falls Hospital.	St. Peter Hospital.	Rochester Hospital.	Soldiers' Home.	School for the Deaf.	School for the Blind.	School for Feeble-Minded.	School for Dependent Children.	Reform School.	Reformatory for Young Men.	State Prison.	Totals.
Salaries and wages.....	\$50.00	\$45.00	\$43.00	\$52.00	\$132.00	\$163.00	\$70.00	\$64.00	\$48.00	\$98.00	\$98.00	\$59.25
Food.....	73.00	55.00	52.00	60.00	55.00	68.00	53.00	35.00	40.00	55.00	47.00	53.25
Clothing and bedding.....	18.00	16.50	16.50	27.00	6.00	9.00	5.00	18.00	19.00	16.00	15.00	16.00
Fuel.....	40.00	25.50	26.00	35.00	37.50	50.00	26.00	30.00	20.00	18.00	16.00	25.00
Light.....	2.00	1.50	1.00	2.00	11.50	7.50	7.00	1.00	1.00	1.00	2.00	2.50
Medical supplies.....	2.00	1.00	1.00	3.00	.50	.50	1.00	.50	.50	2.00	1.50	1.00
Furniture and household.....	8.00	5.50	6.00	8.00	8.00	15.00	5.00	5.00	5.00	5.00	3.00	5.00
Repairs (ordinary).....	10.00	7.50	7.50	5.00	13.00	13.00	10.00	4.00	4.50	7.00	3.00	6.00
Farm, garden and grounds.....	14.00	4.50	4.00	12.00	12.00	12.00	9.00	12.00	7.00	6.00	8.00	5.00
Expenses not classified.....	8.00	7.25	7.75	21.00	17.50	35.00	13.00	13.00	9.00	12.00	8.50	9.57
Industrial training and good conduct.....					32.00	12.00	4.00		31.50	32.00	32.00	8.95
Totals.....	\$225.00	\$169.25	\$164.75	\$225.00	\$325.00	\$385.00	\$203.00	\$182.50	\$185.50	\$52.00	\$196.00	\$191.52
Estimated receipts.....		5.00	.50	2100.00	25.00	20.00	3.00		25.50	32.00	32.00	12.90
Estimated expenses per year.....	\$225.00	\$164.25	\$164.25	\$125.00	\$30.00	\$365.00	\$200.00	\$182.50	\$160.00	\$220.00	\$164.00	\$178.62
Same per week.....	4.30	3.15	3.15	2.39	5.75	7.00	3.83	3.50	3.07	4.22	3.15	3.43
Estimated average number inmates.....	270	1,050	1,000	200	150	45	290	120	250	120	400	3,895
Total amount to be appropriated.....	\$60,750.00	\$172,401.00	\$164,250.00	\$25,000.00	\$45,000.00	\$16,400.00	\$53,000.00	\$21,900.00	\$40,000.00	\$26,400.00	\$65,600.00	\$695,700.00
Estimated expenses for school term.....												
Same per week.....												
Estimated average number for school term.....					206	61	300					

<sup>a</sup> Amount expected from the general government.<sup>b</sup> This amount is provided by standing appropriations already made.



The foregoing estimates are based on the actual experience of previous years, as shown in the tables which follow:

CURRENT EXPENSES PER INMATE FOR THE FISCAL YEAR ENDING JULY 31, 1887.

	St. Peter Hospital.	Rochester Hospital.	Soldier's Home.	School for the Deaf.	School for the Blind.	School for Feeble Minded.	School for Dependent Children.	Reform School.	Prison.	Totals.
Salaries and wages.....	\$43.17	\$44.30	.....	\$125.44	\$166.37	\$37.80	\$117.34	\$50.93	\$69.75	\$57.29
Food.....	52.03	54.00	.....	54.15	77.60	52.63	42.80	38.68	47.47	51.01
Clothing and bedding.....	15.28	13.86	.....	6.06	9.07	11.46	22.54	18.88	13.04	14.23
Fuel.....	24.10	28.18	.....	42.86	52.90	26.08	30.54	21.88	11.36	24.29
Light.....	1.77	1.01	.....	12.09	7.78	8.15	1.11	.65	3.87	2.67
Medical supplies.....	1.07	1.07	.....	.47	.83	1.72	.84	.22	1.50	1.06
Furniture and household.....	3.38	4.40	.....	8.29	9.64	20.39	11.33	3.96	2.72	4.70
Repairs.....	8.40	6.49	.....	27.52	30.42	37.68	4.01	2.32	3.00	8.88
Farm, garden and grounds.....	6.45	3.73	.....	13.49	6.74	12.51	41.74	8.06	.....	5.48
Expenses not classified.....	7.45	7.21	.....	24.40	37.87	20.19	24.43	10.60	8.74	10.43
Industrial training and good conduct.....	.....	.....	.....	24.39	16.71	.53	.....	50.45	31.73	10.90
Totals.....	\$163.10	\$164.25	.....	\$339.16	\$416.43	\$289.14	\$206.68	\$206.63	\$ 93.18	\$190.94
Miscellaneous receipts.....	4.73	.21	.....	23.40	5.80	1.51	1.51	56.43	112.66	26.52
Expense per capita.....	\$158.37	\$164.04	.....	\$315.76	\$410.63	\$287.63	\$295.17	\$150.20	80.52	\$164.32
Same per week.....	3.04	3.15	.....	6.05	7.88	5.52	5.66	2.88	1.55	3.15
Average number inmates.....	897.1	631.6	.....	116.4	31.4	104.4	26.6	202.9	397.9	2,406.3
Total amount expended.....	\$142,071.06	\$103,610.75	.....	\$36,755.80	\$12,893.90	\$30,028.70	\$7,851.50	\$30,474.83	\$32,041.59	\$395,728.13
School term per capita.....	.....	.....	.....	\$236.37	\$307.00	\$267.63	.....	.....	.....	.....
Same per week.....	.....	.....	.....	6.05	7.88	5.13	.....	.....	.....	.....
Average number pupils (school term).....	.....	.....	.....	155.7	42.00	112.2	.....	.....	.....	.....

## CURRENT EXPENSES PER INMATE FOR THE FISCAL YEAR ENDING JULY 31, 1888.

	St. Peter Hospital.	Rochester Hospital.	Soldiers' Home.	School for the Deaf.	School for the Blind.	School for Feeble Minded.	School for Dependent Children.	Reform School.	Prison.	Totals.
Salaries and wages .....	\$45.43	\$45.96	\$110.65	\$131.26	\$165.23	\$80.99	\$89.70	\$46.11	\$77.48	\$38.81
Food .....	54.23	50.53	87.40	54.82	68.96	53.95	31.04	43.22	47.65	51.30
Clothes and bedding .....	19.77	17.59	63.40	5.55	7.62	5.32	21.48	19.43	14.85	17.39
Fuel .....	24.62	24.91	21.90	37.50	51.46	29.41	36.44	17.45	16.02	24.14
Light .....	1.73	.75	1.12	11.67	6.95	7.38	.91	.72	4.38	2.58
Medical supplies .....	.69	1.08	9.56	.32	.49	3.41	1.29	.22	1.75	1.18
Furniture and household .....	5.29	5.58	58.96	6.17	16.09	14.33	10.28	5.56	3.21	6.54
Repairs .....	11.86	12.54	24.31	30.35	26.21	38.37	9.29	9.95	2.88	13.07
Farm, garden and grounds .....	6.40	8.27	8.36	14.74	11.15	11.93	14.82	5.60	5.46	5.46
Expenses not classified .....	8.43	7.57	67.55	17.55	31.48	18.26	16.30	8.40	9.14	10.46
Industrial training and good conduct .....				32.42	11.44	1.00				
Totals .....	\$178.45	\$166.78	\$453.21	\$342.35	\$397.08	\$264.35	\$231.55	\$196.28	\$208.38	\$200.70
Miscellaneous receipts .....	5.10	.45		25.14	15.96	1.95		28.11	109.43	22.51
Expenses per capita .....	\$173.35	\$166.33	\$453.21	\$317.21	\$381.12	\$262.40	\$231.55	\$168.17	\$98.95	\$178.19
Same per week .....	3.31	3.18	8.67	6.07	7.29	5.02	4.43	3.21	1.90	3.43
Average number inmates .....	944.9	751.3	33.8	119.8	34.1	157.2	66.6	237.6	426.5	2,771.8
Total amount expended .....	\$163,795.86	\$124,962.86	\$15,318.71	\$38,001.47	\$12,996.21	\$41,248.20	\$15,421.18	\$39,956.95	\$42,201.06	\$493,902.50
School term per capita .....				\$231.43	\$385.00	\$249.84				
Same per week .....				6.07	7.29	4.78				
Average number pupils (school term) .....				164.2	45.6	165.1				

The following table exhibits the current expense, per capita, of similar institutions in the four states of Minnesota, Wisconsin, Illinois and Ohio:

ANNUAL CURRENT EXPENSE PER INMATE.

STATE.	SOLDIERS' HOME.			DEAF.		BLIND.		FEEBLE-MINDED.		DEPENDENT CHILDREN.		REFORM SCHOOL.	
	In-mates.	Cost.	In-mates.	In-mates.	Cost.	In-mates.	Cost.	In-mates.	Cost.	In-mates.	Cost.	In-mates.	Cost.
Minnesota.....1886-7	1,529	\$161.00	156	42	\$307.00	104	\$288.00	27	\$285.00	203	\$150.00	203	\$150.00
Minnesota.....1887-8	1,696	170.00	164	46	285.00	157	282.00	67	282.00	238	168.00	238	168.00
Illinois.....1884-5	2,923	172.00	502	138	229.00	384	184.00	328	154.00	323	127.00	323	127.00
Illinois.....1885-6	3,514	160.00	508	153	219.00	411	180.00	326	160.00	312	134.00	312	134.00
Illinois.....1886-7	3,616	155.00	507	173	211.00	422	178.00	341	144.00	304	134.00	304	134.00
Wisconsin.....1884-5	1,141	189.00	205	62	318.00	62	318.00	29	.....	29	156.00	29	156.00
Wisconsin.....1886-7	1,150	178.00	195	66	265.00	66	265.00	.....	.....	300	140.00	300	140.00
Ohio.....1886-7	3,731	150.00	408	217	200.00	717	154.00	674	146.00	536	102.00	536	102.00

## EXPENSES OF INSTITUTIONS.

The apparent excess in the expenses of some of the Minnesota institutions is due to several causes: 1. *Younger Institutions*—The soldiers home and school for dependent children are new institutions with unavoidably large expenses. 2. *Smaller numbers* in the schools for deaf, blind and feeble minded, and reform school. Other things being equal it costs more to run institutions having less than 400 to 500 inmates than those having more. The limit of economy of numbers is reached with about 400 or 500 inmates. 3. *Climate*.—Fuel, clothing and food cost more than in milder climates. Ohio institutions are near coal fields. 4. The use of current expense appropriations for extraordinary expenses of the Rochester hospital and the school for feeble-minded. The following statement exhibits the amount expended annually for current expenses of the state correctional and charitable institutions for each year since the state was organized (deducting the earnings of the convicts.)

ANNUAL CURRENT EXPENSES OF MINNESOTA STATE CORRECTIONAL  
AND CHARITABLE INSTITUTIONS, 1860-1888.

1860-61 .....	\$6,250	1874-75 .....	\$170,650
1861-62 .....	6,650	1875-76 .....	193,450
1862-63 .....	7,300	1876-77 .....	205,300
1863-64 .....	14,450	1877-78 .....	239,600
1864-65 .....	14,250	1878-79 .....	242,850
1865-66 .....	26,600	1879-80 .....	243,800
1866-67 .....	45,200	1880-81 .....	241,750
1867-68 .....	63,800	1881-82 .....	274,700
1868-69 .....	83,750	1882-83 .....	<sup>a</sup> 209,150
1869-70 .....	93,400	1883-84 .....	318,950
1870-71 .....	103,200	1884-85 .....	306,050
1871-72 .....	131,350	1885-86 .....	363,400
1872-73 .....	143,700	1886-87 .....	395,750
1873-74 .....	179,000	1887-88 .....	493,900

<sup>a</sup> Eight months.



The following table exhibits the population of the state correctional and charitable institutions, taxable property in the state, expenses of institutions and rate of taxation required to support them for ten years ending July 31, 1888, with an estimate of the same for three years ending July 31, 1891.

YEAR.	Estimated Pop- ulation of the State.	Average Num- ber of Inmates of the State Cor- rectional and Charitable In- stitutions.	Number of In- mates for every 100,000 Inhab- itants.	Total Valuation of Taxable Property in the State.	Am't Expended for Current Ex- penses of State Correctional and Charitable Institutions.	Rate of these Expenses on all Taxable Prop- erty in the State.	Amount Ex- pended for each Inhabitant of the State.	Amount Ex- pended for each Inmate Main- tained.
1878-79 .....	735,000	1,133	154	\$242,000,000	a\$242,850	1 mill	33 cents	a\$214
1879-80 .....	780,773	1,208	154	250,000,000	243,800	.98 mill	31 cents	202
1880-81 .....	830,000	1,182	143	258,056,000	241,750	.94 mill	29 cents	205
1881-82 .....	900,000	1,295	144	271,159,000	274,700	1.01 mill	31 cents	212
1882-83 .....	960,000	1,388	145	311,193,000	b209,150	c1.01 mill	c33 cents	c226
1883-84 .....	1,040,000	1,689	162	334,459,000	318,950	.95 mill	31 cents	188
1884-85 .....	1,117,738	1,934	173	388,959,000	353,900	.91 mill	31 cents	183
1885-86 .....	1,200,000	2,182	162	393,730,000	363,400	.91 mill	30 cents	167
1886-87 .....	1,300,000	2,408	185	469,852,000	395,750	.84 mill	31 cents	164
1887-88 .....	1,400,000	2,772	198	486,670,000	495,900	1.01 mill	35 cents	177
1888-89 .....	1,520,000	3,133	206	\$535,300,000	\$554,000	1.05 mill	37 cents	\$180
1889-90 .....	1,640,000	3,509	214	588,900,000	636,200	1.08 mill	39 cents	181
1890-91 .....	1,775,000	3,895	219	647,200,000	695,700	1.07 mill	39 cents	179

## ESTIMATE FOR THREE YEARS — 1888-91.

a In this table the earnings of convicts at the state prison and miscellaneous receipts at all the institutions are deducted.  
 b For eight months. c Corrected for yearly average.

The apparent increase in the rate of the estimated expenses for the coming three years is due partly to the extraordinary expenses necessary in opening the new institutions at Fergus Falls and St. Cloud; but chiefly to the fact that, owing to the uncertainty as to future results, the earnings of the prisoners at Stillwater and St. Cloud are estimated at only \$32 per man instead of \$110 as hitherto. Should the convicts in the two prisons earn \$110 each the foregoing figures would be changed as follows:

YEAR.	Am't Expended for Current Expenses of State Correction and Charitable Institutions.	Rate of these Expenses on all Taxable Property in the State.	Amount Expended for each Inhabitant of the State.	Amount Expended for each Inmate Maintained.
1888-89 .....	\$534,000	1 mill	35 cents	\$170
1889-90 .....	600,000	1.02 mill	37 cents	171
1890-91 .....	655,700	1.01 mill	37 cents	168

The following statement shows the average number of inmates in the state institutions for the past eleven years:

AVERAGE NUMBER OF INMATES IN MINNESOTA STATE INSTITUTIONS.

	Hospital for Insane.	<i>a</i> School for the Deaf.	<i>a</i> School for the Blind.	School for Feeble-Minded.	Reform School.	State Prison.	State Public School.	Total Number of Inmates.
1877-78.....	620.8	<i>b</i> 72.	<i>b</i> 12.	.....	105.3	224.2	.....	1,034.3
1878-79.....	689.3	<i>b</i> 73.5	<i>b</i> 16.	15.9	108.8	229.6	.....	1,133.1
1879-80.....	728.7	<i>b</i> 77.	<i>b</i> 18.	20.9	111.4	249.8	.....	1,205.8
1880-81.....	710.4	78.2	17.1	22.1	121.4	234.5	.....	1,183.7
1881-82.....	785.9	83.2	24.	29.8	122.5	250.	.....	1,295.4
1882-83.....	823.6	92.	23.1	36.8	128.	285.	.....	1,388.5
1883-84.....	1,062.8	94.3	24.7	46.9	128.	332.	.....	1,688.7
1884-85.....	1,224.4	96.3	25.8	66.2	147.8	374.	.....	1,934.5
1885-86.....	1,379.5	111.	24.9	81.4	173.	412.	.....	2,181.8
1886-87.....	1,528.7	116.4	31.4	104.4	202.9	397.9	26.6	2,408.3
1887-88.....	1,696.2	119.8	34.1	157.2	237.6	426.5	66.6	.....
1887-88.....	Soldiers'	Home.....	.....	.....	.....	.....	33.8	2,771.8

*a* The averages given are for the calendar year. The averages for the school year of the deaf and blind are about one-third larger.

*b* Estimated.

ESTIMATED POPULATION 1888-91.

	Hospital for Insane.	School for the Deaf.	School for the Blind.	School for Feeble-Mind'd.	Reform School.	State Prison.	State Public School.	Soldiers' Home.	Reformatory.	Total Number of Inmates.
1888-89..	1,866	130	37	240	240	430	100	90	.....	3,133
1889-90..	2,090	140	41	280	250	420	100	140	48	3,509
1890-91..	2,320	150	45	290	250	400	120	200	120	3,895

## ESTIMATE FOR EXTRAORDINARY REPAIRS AND IMPROVEMENTS.

The foregoing estimates include an appropriation for ordinary repairs but do not provide for extraordinary repairs and improvements such as go to increase the value of the plant. Heretofore some of the institutions have had a special appropriation for this purpose (*e. g.* the hospitals for insane from 1885 to 1887 and the reform school from 1887 to 1889) while others have met these expenses from their current expense appropriations, thereby increasing their apparent expenses unduly on the one hand and leading them to ask for larger amounts than their actual necessities on the other. In Illinois, Ohio and other states, an annual appropriation is made for this purpose. Some of our institutions have asked for such an appropriation this year; others have not. We believe that it will result in economy if such appropriations are made in this state and the current appropriations are held strictly to their proper use. We have, therefore, cut down our estimate for ordinary repairs and have put a corresponding amount into our estimate for extraordinary repairs. If our estimate for extraordinary repairs is not allowed, there should be an increase in the current expense appropriations for ordinary repairs.

The following estimate amounts (except for the state prison) to about one per cent of the inventoried value of the plant.

We recommend the following:

INSTITUTION.	Years Ending		Total for Two Years.
	July 31, 1890.	July 31, 1891.	
Fergus Falls hospital for insane .....	\$1,000	\$2,000	\$3,000
St. Peter hospital for insane.....	5,000	5,000	10,000
Rochester hospital for insane.....	5,000	5,000	10,000
Deaf, blind and feeble-minded.....	5,000	5,000	10,000
School for dependent children.....	1,000	1,000	2,000
Reform school.....	1,000	1,000	2,000
State prison.....	2,000	2,000	4,000
St. Cloud reformatory .....	1,000	1,000	2,000
Soldiers' home .....	1,000	1,500	2,500
Totals.....	\$22,000	\$23,500	\$45,500

The above estimate includes new institutions as well as old ones, for the reason that experience proves that these extraordinary expenses are larger, if anything, in the newer institutions.

## ESTIMATES FOR LANDS, BUILDINGS, ETC.

The state board of corrections and charities offers no estimates of the amount required for the purchase of lands, erection of buildings, and other special appropriations, except extraordinary repairs and improvements.

We have, however, requested the boards of management of the several state institutions to inform us as to the appropriations which they propose asking from the legislature.

The following statement shows the amounts requested by the several boards of management. For convenience, we have shown the amounts asked by them for current expenses and extraordinary repairs, as well as the amounts asked for lands, buildings, etc.

A LIST OF THE APPROPRIATIONS ASKED FOR BY THE TRUSTEES AND MANAGERS OF THE STATE CORRECTIONAL AND CHARITABLE INSTITUTIONS FROM THE LEGISLATURE OF 1889:

TO BE AVAILABLE FOR THE YEAR ENDING JULY 31, 1889.

INSTITUTION.	For Current Expenses.	For Extraordinary Repairs and Improvem'ts	For Land, Buildings, Etc	Totals.
Fergus Falls hospital for insane.....			\$72,000	\$72,000
St. Peter hospital for insane.....			15,000	15,000
Rochester hospital for insane.....			37,000	37,000
Soldiers home.....			110,000	110,000
School for the deaf.....			1,000	1,000
School for the blind.....			5,000	5,000
School for the feeble-minded.....			35,000	35,000
School for dependent children.....	\$7,455		24,150	31,605
State prison.....				
Reform school.....				
St. Cloud reformatory.....			78,575	78,575
Totals .....	\$7,455		\$377,725	\$385,180



## TO BE AVAILABLE FOR THE YEAR ENDING JULY 31, 1890.

INSTITUTION.	For Current Expenses.	For Extraordinary Repairs and Improvem'ts	For Land, Buildings, Etc	Totals.
Fergus Falls hospital for insane.....	\$26,000	.....	\$140,000	\$166,000
St. Peter hospital for insane.....	171,990	5,000	10,000	186,990
Rochester hospital for insane.....	155,662	5,000	35,000	195,662
Soldiers home.....	a 20,000	.....	110,000	130,000
School for the deaf.....	42,000	b 5,000	c 28,500	75,500
School for the blind.....	15,000	b.....	.....	15,000
School for the feeble-minded.....	56,000	b.....	7,000	63,000
School for dependent children.....	20,000	1,000	23,700	44,700
State prison.....	75,000	.....	a 30,000	105,000
Reform school.....	40,000	.....	.....	40,000
St. Cloud reformatory.....	28,160	.....	.....	28,160
Totals.....	\$649,812	\$16,000	\$384,200	\$1,050,012

## TO BE AVAILABLE FOR THE YEAR ENDING JULY 31, 1891.

INSTITUTION.	For Current Expenses.	For Extraordinary Repairs and Improvem'ts	For Land, Buildings, Etc	Totals.
Fergus Falls hospital for insane.....	\$41,600	.....	\$100,000	\$141,600
St. Peter hospital for insane.....	180,180	5,000	.....	185,180
Rochester hospital for insane.....	163,800	5,000	22,000	190,800
Soldiers home.....	a 20,000	.....	.....	20,000
School for the deaf.....	45,000	b 5,000	21,500	71,500
School for the blind.....	15,000	b.....	4,000	19,000
School for the feeble-minded.....	58,000	b.....	12,000	70,000
School for dependent children.....	21,900	1,000	23,500	46,400
State prison.....	75,000	.....	a 30,000	105,000
Reform school.....	40,000	.....	.....	40,000
St. Cloud reformatory.....	28,160	.....	.....	28,160
Totals.....	\$688,640	\$16,000	\$213,000	\$917,640

## TOTAL AMOUNTS ASKED FROM THE LEGISLATURE OF 1889.

INSTITUTION.	For Current Expenses.	For Extraordinary Repairs and Improvem'ts	For Land, Buildings, Etc	Totals.
Fergus Falls hospital for insane.....	\$67,600	.....	\$312,000	\$379,600
St. Peter hospital for insane.....	352,170	\$10,000	25,000	387,170
Rochester hospital for insane.....	319,462	10,000	94,000	423,462
Soldiers home.....	a 40,000	.....	220,000	260,000
School for the deaf.....	87,000	b 10,000	c 51,000	148,000
School for the blind.....	30,000	b.....	9,000	39,000
School for feeble-minded.....	114,000	b.....	54,000	168,000
School for dependent children.....	49,355	2,000	71,350	122,705
State prison.....	150,000	.....	a 60,000	210,000
Reform school.....	80,000	.....	.....	80,000
St. Cloud reformatory.....	56,320	.....	78,575	134,895
Totals.....	\$1,345,907	\$32,000	\$974,925	\$2,352,832

a Standing appropriations already made.

b Deaf, blind and feeble-minded included under "Deaf."

c Includes \$3,000 for insurance for the deaf, blind and feeble-minded.

*Tabulated Statement of Purposes for which Appropriations for Lands, Buildings, Etc., are Requested.*

	HOSPITALS FOR INSANE.				Soldiers Home at Minneapolis.	INSTITUTE FOR DEFECTIVES AT FAIRBAULT.			School for Dependent Children at Owatonna.	CORRECTIONAL INSTITUTIONS.		TOTALS.
	Hospital at Fergus Falls.	Hospital at St. Peter.	Hospital at Rochester.			School for the Deaf.	School for the Blind.	School for the Feeble-Minded.		Prison at Stillwater.	Reformatory at St. Cloud.	
For lighting plant.....						\$7,000		\$7,000	\$1,250		\$1,825	\$22,075
For library.....									150		1,000	1,150
For pipe organ.....												3,000
For furniture, etc.....							\$3,000		4,000		7,400	20,400
For land.....		\$5,000	2,000	\$7,000								20,000
For buildings.....	\$270,000	12,000	77,000	8,000	\$200,000	40,000	2,000	12,000	59,350		40,700	795,050
For plumbing, heating, etc.....	40,000							34,000	3,700		11,800	55,500
For building bridge.....							4,000					4,000
For tools and machinery.....											5,000	5,000
For engines, boilers, etc.....		5,000				1,000		1,000			1,850	8,350
For fire protection.....		1,000		2,000	20,000				1,900		7,000	1,900
For outside improvements.....	2,000								750			32,750
For farm machinery and stock.....						3,000			250		2,500	3,000
For insurance.....												
Totals.....	\$312,000	\$25,000	\$94,000		\$220,000	\$51,000	\$9,000	\$54,000	\$71,350	\$60,000	\$78,575	\$974,925

The following is a comparison of the amount thus requested with the expenditures for like purposes during the past ten years:

AMOUNT EXPENDED FOR LANDS, BUILDINGS, ETC., FOR CORRECTIONAL AND CHARITABLE INSTITUTIONS IN TEN YEARS.

YEAR.	Amount Expended for Buildings, Etc.	Rate of these Expenditures on all Taxable Property in the State.	Amount Expended for Each Inhabitant of the State.
1878-79.....	\$87,850	0.36 Mills.	12 Cents.
1879-80.....	73,050	0.29 Mills.	9 Cents.
1880-81.....	113,200	0.44 Mills.	14 Cents.
1881-82.....	170,000	0.63 Mills.	18 Cents.
1882-83.....	a 116,650	a 0.37 Mills.	a 12 Cents.
1883-84.....	180,750	0.55 Mills.	17 Cents.
1884-85.....	144,950	0.37 Mills.	14 Cents.
1885-86.....	143,650	0.36 Mills.	12 Cents.
1886-87.....	180,850	0.39 Mills.	13 Cents.
1887-88.....	175,200	0.36 Mills.	13 Cents.

APPROPRIATIONS FOR BUILDINGS, ETC., TO BE ASKED FOR THREE YEARS.

YEAR.	Amount to be Expended for Buildings, Etc.	Rate of these Expenditures on all Taxable Property in the State.	Amount to be Expended for each Inhabitant of the State.
1888-89.....	b \$377,725	0.71 Mills.	25 Cents.
1889-90.....	c 384,200	0.65 Mills.	23 Cents.
1890-91.....	c 213,000	0.33 Mills.	12 Cents.
Total.....	\$974,925	1.69 Mills.	60 Cents.

a For eight months.

b Includes \$157,000 already appropriated.

c Includes \$30,000 already appropriated.

It will be seen that the amount asked for buildings, etc, for the fiscal years ending July 31, 1889, and July 31, 1890, is more than twice as large as the amount expended for like purposes in any one of the past ten years. Some increase is inevitable. The insane in Minnesota, as in every other state, are increasing faster than the population, and the cost of buildings for this class has already been reduced to the minimum. The new institutions provide for new classes, and it costs money to build them. The abolition of the contract system at the state prison compels the state to provide money to buy machinery and tools to carry on business.

Nevertheless, we do not think that the tax payers of the state are prepared to double their annual outlay for buildings for these institutions.

The following are the amounts appropriated by the last three legislatures for lands, buildings, etc., for the state correctional and charitable institutions:

Legislature of		Cents per Inhabitant of State.	Rate on all Taxable Property in the State.
1883	\$395,000	40 cents.	1.1 mills.
1885	307,600	28 cents.	.7 mills.
1887	541,300	42 cents.	1.1 mills.

The legislature of 1889 is asked to appropriate for lands, buildings, etc., \$974,925, which would be 60 cents for each inhabitant of the state, or 1.7 mills taxation on all taxable property in the state.

#### DETAILED STATEMENT OF THE FOREGOING.

The following is a detailed statement of the purposes for which the trustees of the several institutions desire to use the appropriations requested by them, as above:

#### FERGUS FALLS HOSPITAL FOR INSANE.

Finishing, furnishing, heating, plumbing, lighting and sewerage for detached ward.....	\$30,000	
New west wing in 1889.....	100,000	
New west wing in 1890.....	100,000	
Heating, furnishing and plumbing same in 1890.....	40,000	
Boilers and engine house, laundry, kitchen, smokestack, engine and boiler, and kitchen and laundry furniture in 1889.....	20,000	
Same in 1890.....	20,000	
Side track.....	2,000	
Total for buildings, etc.....		\$312,000
Current expenses for 1889-90, 100 patients.....	\$26,000	
Current expenses for 1890-91, 200 patients.....	41,600	
		67,600
Total appropriations asked .....		\$397,600



ST. PETER HOSPITAL FOR INSANE.

Boiler house, boilers, and repairs on same.....	\$5,000	
Preparing and furnishing kitchen of south ward.....	2,000	
Additional furniture for south ward.....	2,000	
Additional story to north ward.....	10,000	
Lighting.....	5,000	
Side track.....	1,000	
		<hr/>
Total for buildings, etc.....		\$25,000
Extraordinary repairs, \$5,000 per year.....		10,000
Current expenses for 1889-90 (1,050 patients).....	\$171,990	
Current expenses for 1890-91 (1,100 patients).....	180,180	
		<hr/>
		352,170
		<hr/>
Total appropriations asked .....		\$387,170

ROCHESTER HOSPITAL FOR INSANE.

Remodeling centre building and first east and west wings for the year 1889.....	\$25,000	
Same for the year 1890 .....	25,000	
Same for the year 1891.....	22,000	
Chapel and amusement hall.....	3,500	
Enlarging laundry .....	1,500	
Heating and furnishing west detached ward.....	7,000	
Additional land.....	8,000	
Settling tank for sewerage.....	2,000	
		<hr/>
Total for buildings, etc.....		\$94,000
Extraordinary repairs, \$5,000 per year.....		10,000
Current expenses for 1889-90 (950 patients) .....	\$155,662	
Current expenses for 1890-91 (1,000 patients).....	163,800	
		<hr/>
		319,462
		<hr/>
Total appropriations asked.....		\$423,462

STATE SOLDIERS HOME.

Buildings, etc., for the year 1889.....	\$100,000	
Buildings, etc., for the year 1890.....	100,000	
Improvement of the grounds, \$10,000 per year.....	20,000	
		<hr/>
Total for building, etc.....		\$220,000
Current expenses (annual appropriation) 1889-90.....	\$20,000	
Current expenses (annual appropriation) 1890-91.....	20,000	
		<hr/>
		40,000
		<hr/>
Total appropriations asked.....		\$260,000

## MINNESOTA INSTITUTE FOR DEFECTIVES.

Extraordinary repairs for the schools for the deaf, the blind and the feeble-minded, \$5,000 per year.....	\$10,000
For insurance on the buildings of the same.....	3,000
	<hr/>
Total appropriations asked.....	\$13,000

## SCHOOL FOR THE DEAF.

New building.....	\$40,000
Two new boilers.....	1,000
Electric lighting.....	7,000
	<hr/>
Total for buildings, etc.....	\$48,000
Current expenses for 1889-90.....	\$42,000
Current expenses for 1890-91.....	45,000
	<hr/>
	\$87,000
	<hr/>
Total.....	\$135,000

## SCHOOL FOR THE BLIND.

Outside hospital.....	\$2,000
Building bridge.....	4,000
Pipe organ.....	3,000
	<hr/>
Total for buildings, etc.....	\$9,000
Current expenses for 1889-90.....	\$15,000
Current expenses for 1890-91.....	15,000
	<hr/>
	\$30,000
	<hr/>
Total appropriations asked.....	\$39,000

## SCHOOL FOR THE FEEBLE-MINDED.

Building, etc.....	\$34,000
Electric lighting (including the blind).....	7,000
Boilers.....	1,000
Additional land.....	12,000
	<hr/>
Total for buildings etc.....	\$54,000
Current expenses for 1889-90.....	\$56,000
Current expenses for 1890-91.....	58,000
	<hr/>
	\$114,000
	<hr/>
Total appropriations asked.....	\$168,000

## STATE PUBLIC SCHOOL FOR DEPENDENT CHILDREN.

Deficiency in building account.....	\$14,000
Two wings to main building.....	30,000
One new cottage.....	8,500

Enlarging engine house and laundry and providing additional storage for coal.....	\$5,000	
Plumbing in new cottage and wing to main building.....	1,300	
Steam heating.....	2,400	
Electric lighting.....	1,250	
Horse barn.....	1,000	
Vegetable cellar.....	500	
Cold storage.....	350	
Side-walks, grading and trees.....	750	
Water mains, hydrants and hose.....	1,100	
Fire pump.....	800	
Furniture and household supplies for dining rooms, \$750; kitchen and bakery, \$1,125; office, reception and sitting rooms, \$350; new cottage, \$1,350; wings of main buildings, \$425.....	4,000	
Purchase of cows.....	250	
Library.....	150	
		<hr/>
Total for building etc.....		\$71,350
Extraordinary repairs and improvement, \$1,000 per year....		2,000
Current expenses, deficiency for 1888-89.....	\$7,455	
Current expenses for 1889-90.....	20,000	
Current expenses for 1890-91.....	21,900	
		<hr/>
		\$49,355
		<hr/>
Total appropriations asked.....		\$122,705

STATE PRISON.

For improvements \$30,000 per year (annual appropriation).....		\$60,000
Current expenses, 1889-90.....	\$75,000	
Current expenses, 1890-91.....	75,000	
		<hr/>
		\$150,000
		<hr/>
Total.....		\$210,000

The amounts asked above do not include appropriations for tools, materials or working capital for the employment of convicts.

STATE REFORM SCHOOL.

Current expenses, 1889-90.....	\$40,000	
Current expenses, 1890-91.....	40,000	
		<hr/>
Total.....		\$80,000

In addition to the above request it is understood that the board of managers will ask for an appropriation of \$100,000 as a loan to be used for the erection of new buildings and to be refunded from the sale of the old site.

## STATE REFORMATORY.

Constructing eighty cells.....	\$25,000	
Temporary hospital.....	1,200	
Offices and officers' quarters.....	4,000	
Residence for superintendent.....	3,500	
Chapel, school rooms and furniture.....	1,000	
Stable for stock.....	1,500	
Plank wall around buildings and quarry.....	4,500	
		\$40,700
Sewerage, twelve-inch main to river.....	\$5,000	
Grading grounds and constructing roads .....	2,000	
		7,000
Plumbing.....	\$8,500	
Electric lights.....	1,825	
Steam heating.....	3,300	
		13,625
Furniture, including laundry and 128 cells.....	\$6,900	
Furniture for hospital.....	500	
		7,400
Engine, shafting, etc.....	\$1,350	
Tools and machinery for quarry.....	5,000	
		6,350
Farm machinery and stock .....		2,500
Library.....		1,000
Total for buildings, etc.....		\$78,575
Current expenses for two years for an average of 128 men...		56,320
Total appropriations asked.....		\$134,895

We have gone somewhat into detail with reference to the requests of the state institutions for appropriations, believing that the legislature will value the information thus afforded.

## SUMMARY OF EXPENSES.

The following is a summary of the expenses incurred by this board during the biennial period:

	1886-7.	1887-8.	Totals.
Traveling expenses of D. C. Bell.....	\$4 60	\$8 25	\$12 85
Traveling expenses of C. H. Berry....	179 61	88 55	268 16
Traveling expenses of M. McG. Dana.....	4 26	84 90	89 15
Traveling expenses of G. Vivian.....	41 93	82 50	124 43
Traveling expenses of H. R. Wells .....	39 28	66 86	106 14
Traveling expenses of secretary .....	376 00	103 35	479 35
Salary of secretary .....	2,499 96	2,500 00	4,999 96
Salary of clerk.....	960 00	1,080 00	2,040 00
Extra clerk hire.....	267 66	360 00	627 66
Postage and telegraphing.....	320 60	80 70	401 30
Expenses of Stillwater investigation.....		437 32	437 32
Miscellaneous expenses.....	460 45	243 51	703 96
Totals.....	\$5,154 34	\$5,134 94	\$10,290 28



In the supplement will be found a detailed account of the expenses above mentioned.

#### MEETINGS OF THE BOARD.

Meetings of the board have been held during the biennial period as follows: Sept. 15 and Dec. 22, 1886; Jan. 27, April 5, June 13 and Oct. 18, 1887; Feb. 2, April 3 and June 13, 1888.

The most important business transacted by the board at their meetings was as follows:

*Sept. 15, 1886.* The second biennial report of the board was considered and recommendations to the legislature of 1887 were agreed upon.

The secretary was instructed to correspond with the county physician of Steele county with reference to the reported neglect of a sick patient by the overseer of the county poorhouse.

*Dec. 22, 1886.* Gen. Berry presented a report of the laying of the corner-stone of the new intermediate penitentiary at Mansfield, Ohio.

On the afternoon of December 22d, a meeting of citizens of Minnesota called by the secretary under authority of the board, was held in the hall of representatives at the state capitol, to consider the question of making the proposed second state prison a reformatory for young men.

An address was delivered by Hon. Gordon E. Cole.

The following resolution was offered by Judge Wm. McClure, of Stillwater:

*Resolved,* That it is the judgment of this meeting that instead of the new state prison contemplated by the law of 1885 a reformatory institution should be established.

The resolution was discussed by Judge Isaac Atwater, of Minneapolis; ex-Gov. Ramsey; Hon. D. E. Myers, of Stearns county; Hon. B. B. Herbert, of Goodhue county; Warden J. A. Reed, of the state prison; Dr. C. N. Hewitt, secretary state board of health; Dr. W. H. Pratt, prison physician; Hon. J. D. Ludden, of St. Paul, and Rev. W. H. Harrington, ex-chaplain of the state prison.

The resolution was unanimously adopted by a rising vote.

Mr. W. C. Rice, of Goodhue county, offered the following supplementary resolutions:

*Resolved*, First, that this meeting ask the coming legislature to appoint a joint committee to consider the question of organizing the second state prison as a reformatory institution.

*Resolved*, Second, that this meeting appoint a committee of five or more to draft a suitable bill and bring it before the legislative committee as an aid to said committee in its work; said committee to be appointed by the chair.

*Resolved*, Third, that when this meeting adjourns it shall be to such date, early in the session of the legislature as may be designated by the state board of corrections and charities, and that the members of the legislature be invited to attend the meeting in a body.

The resolutions were unanimously adopted, and Hon. Gordon E. Cole, Judge F. M. Crosby, Ex-Gov. John S. Pillsbury, Warden J. A. Reed and Hon. C. H. Berry were appointed as such committee.

*Jan. 27, 1887.* Plans were approved for a county jail and sheriff's residence in Olmsted county, providing for keeping prisoners on the separate plan.

The secretary submitted the first quarterly financial statement of the state correctional and charitable institutions for the three months ending Oct. 31, 1887, and was instructed to issue such a statement at the close of each quarter over his signature "by order of the board."

*April 5, 1887.* The secretary was instructed to request the directors of the institute for defectives to furnish abstracts of their inventories for the fiscal years ending July 31, 1885 and 1886.

*June 13, 1887.* Plans were submitted for a court house and county jail in Aitkin county. On motion of Mr. Wells the plans were approved with the understanding that the board of corrections and charities is of the opinion that it is undesirable, as a rule, to build county jails in connection with court houses, and that the board recommends that additional windows be inserted for the better lighting of the cell rooms.

A plan was submitted for a county poorhouse for Cottonwood county. On motion of Mr. Campbell the secretary was instructed to notify the commissioners of Cottonwood county that it is inexpedient in the judgment of this board for Cottonwood county to build a poorhouse, but if the commissioners should decide to build a poorhouse notwithstanding this advice, the plan submitted is deemed by this board inadequate and unsuitable for the purpose.

Dr. Dana presented a special report on the prisons and public institutions of Great Britain giving the results of his observations during a recent tour. On motion of Gen. Berry the thanks of the board were extended to Dr. Dana and he was requested to continue his report at the next meeting of the board including his observations on prisoners' aid societies and on French prisons.

*July 25, 1887.* Acting on the request of the board of prison inspectors, the governor appointed Gen. C. H. Berry, Hon. H. R. Wells and Hon. D. C. Bell, as a committee of the state board of corrections and charities to investigate charges of "irregularities said to have occurred in the conduct of the affairs connected with the state prison at Stillwater." The committee met at the prison September 6th, 7th, 15th, and 16th, and October 17th, and 18th, and after concluding the investigation submitted a report to the governor accompanied by the testimony in full according to the instructions of the governor.

*Oct. 18, 1887.* Plans were submitted for an addition to the Duluth city lockup. It was voted to approve the plans, provided the building is made fire-proof and the cells are arranged with a middle corridor and provision for proper separation of prisoners.

The secretary reported that plans had been submitted since the last meeting, for a new city lockup at Minneapolis and an addition to the county jail of St. Louis county, and that he had made certain recommendations respecting the same, with the approval of Messrs. Bell, Berry, Wells and Dana. This action was approved and ratified.

A committee was appointed, consisting of Messrs. Dana, Berry and the secretary, to issue a circular to the clergy of the state, asking them to observe Sunday Oct. 30, 1887, as "Prison Sunday."

The committee on the institutions at Faribault was requested to submit a special report on the workings of those institutions.

*Feb. 2, 1888.* John W. Willis took his seat as a member of the board, *vice* Hon. William M. Campbell, resigned.

A communication was received Frank Ives, county attorney, and Hon. Ira B. Mills, district judge, relative to the bad condition of the Polk county jail. The secretary was instructed to visit the jail and after investigation, to make needed suggestions to the district judge and county attorney. (As the result of the said inspection and suggestion the jail was condemned and disused.)

James O'Brien, county attorney of Houston county, asked advice as to the proper disposition of an insane alien pauper, shipped to Minnesota from Germany.

The secretary was instructed to confer with the commissioners of Ramsey county relative to the plans of the proposed new county jail.

Dr. Dana presented his supplementary report on British and French prisons, which was accepted and ordered printed with the report previously submitted.

*April 3, 1888.* Revised plans were submitted for the county jail in Aitkin county and were approved by the board.

The following resolution was adopted:

*Resolved*, that so far as we are advised of the action of the board of managers of the reform school in making expenditure for building on the present site, since the action of the last legislature, contemplating the removal of that institution, we do not approve of the same.

The committee on the state prison, with the secretary, were instructed to present a report at the next quarterly meeting on the subject of convict labor.

*Aug. 14, 1888* (postponed from July). Plans were submitted by the commissioners of St. Louis county for a new jail and sheriff's residence, providing for the separation of prisoners. The plans were approved subject to certain suggestions of the secretary.

Plans were approved for a county poorhouse for Becker county.

A report from Gen. C. H. Berry, state delegate to the national prison association, was read and ordered printed in the biennial report of the board.

The secretary submitted a special report on the prison labor question, which was read by request before a joint meeting of the board of prison inspectors and the board of corrections and charities, with a delegation from the knights of labor. The report was accepted by the board with certain modifications.

Mr. D. C. Bell was elected vice president in place of Dr. M. McG. Dana, resigned.

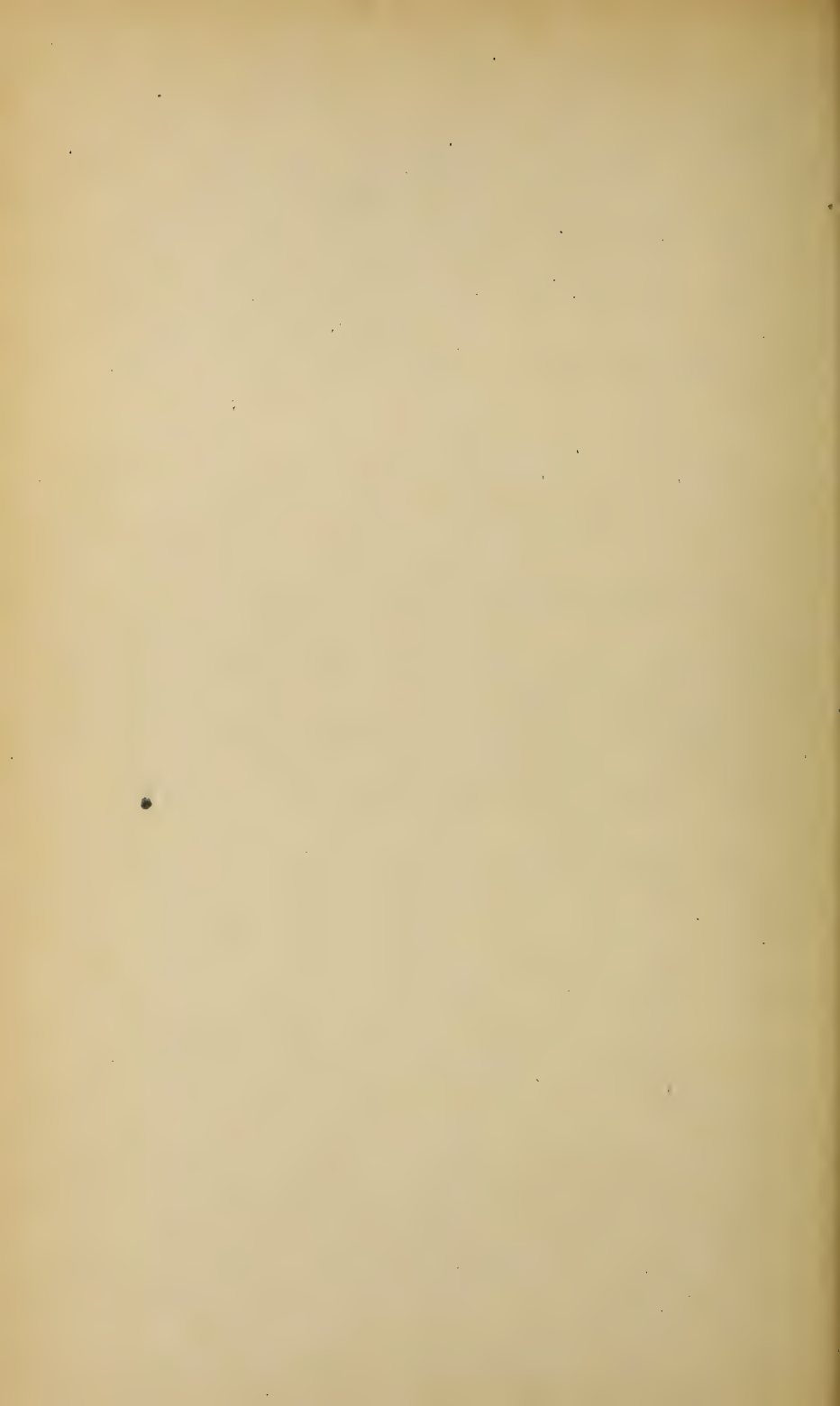


For further information see the report of our secretary, which follows.

All of which is respectfully submitted.

ANDREW R. MCGILL,  
*Governor and President Ex Officio.*

DAVID C. BELL,  
SAMUEL G. SMITH,  
GODFREY VIVIAN,  
HENRY R. WELLS,  
JOHN W. WILLIS.



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SECRETARY'S

THIRD BIENNIAL REPORT

TO THE

STATE BOARD OF

CORRECTIONS AND CHARITIES.

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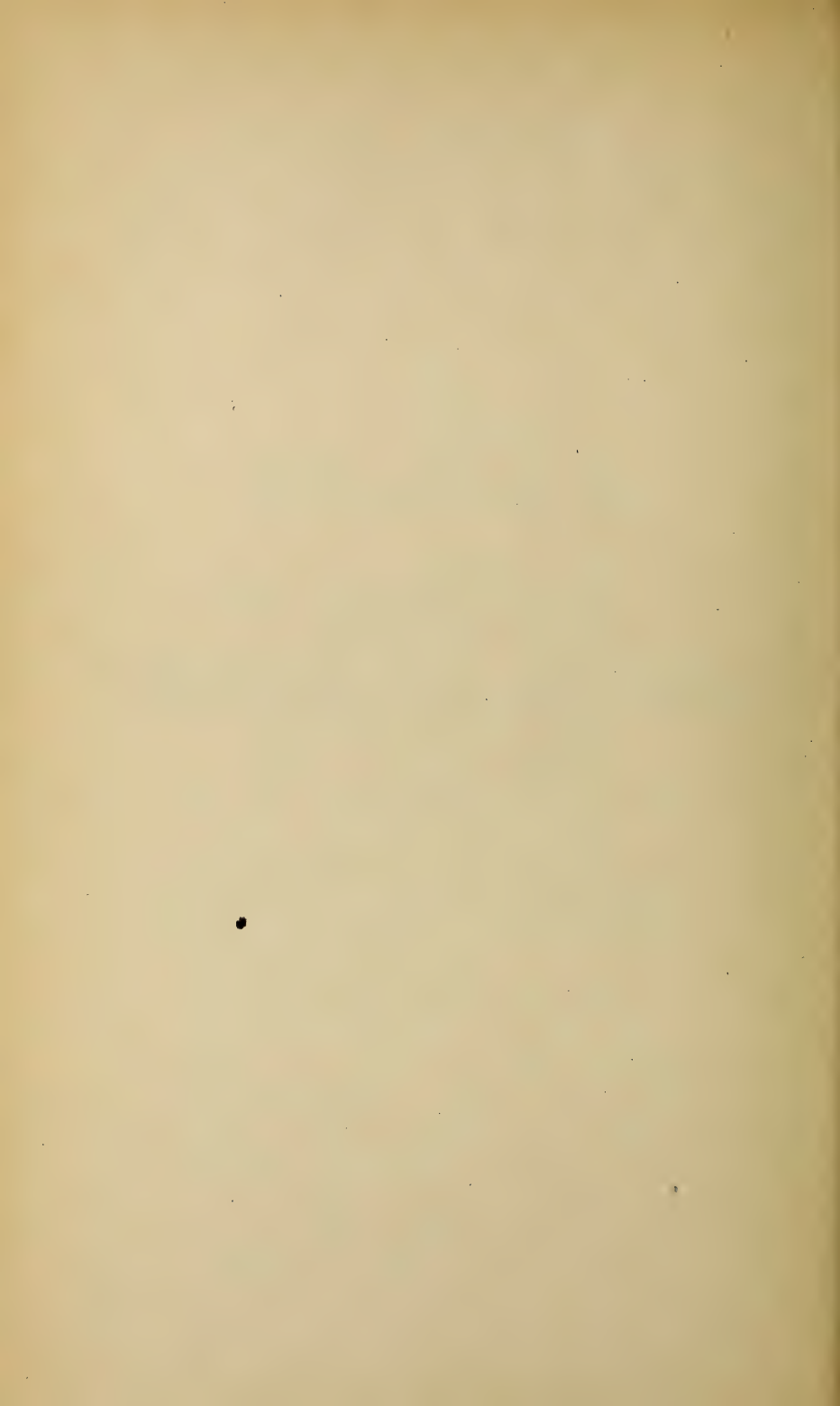
PART I.

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State Correctional and Charitable Institutions.

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## REPORT OF THE SECRETARY

TO THE

STATE BOARD OF CORRECTIONS AND CHARITIES.

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*Gentlemen:* I have the honor to submit my biennial report for the period ending July 31, 1888.

During the past two years much of my time has been given to perfecting the system of reports of the finances of the state institutions. At the outset, some difficulty was experienced in getting satisfactory monthly reports, but there has been a steady improvement in this respect, and most of the reports are now rendered regularly and promptly.

During the past two years your secretary has been frequently called upon by the officers, trustees and architects of the several state institutions, for advise and suggestion. The secretary has attended, by request, meetings of the board of trustees of the hospitals for insane, the institute for defectives, the state school for dependent children, the state prison and the state reformatory.

The work of inspection of county institutions has been somewhat neglected owing to the pressure of the work of the state institutions. It is hoped that this work may be made more efficient in future.

I have the honor to submit herewith the statistics of the state institutions.

### REMARKS ON THE STATISTICAL TABLES RELATING TO THE STATE INSTITUTIONS.

In the first two biennial reports of this board statistical tables were presented going back (except in the case of the schools for the deaf and the blind) to the foundation of each institution. These statistics were interesting and valuable but were unsatisfactory, partly because the data were imperfect in some cases

and partly because the classification used and the systems of accounts of the various institutions varied so much as to prevent uniformity.

The uniform classification adopted by the institutions on the recommendation of this board and the uniform reports made to this office, afford materials for much more satisfactory statistics and comparisons. It has seemed best therefore, to take a new departure and start a new series of statistics from Aug. 1, 1886.

Table "A" gives a list of the trustees and officers of the state correctional and charitable institutions.

Table "B" is a statement of all appropriations made for the benefit of the state correctional and charitable institutions, showing the balances brought forward from former years, the amounts appropriated by the legislature, the amounts drawn by the institutions and the balances undrawn at the close of the fiscal year, as shown by the books of the auditor of state.

The balances undrawn Aug. 1, 1886, amounted to \$80,686. The legislature appropriated for the biennial period \$1,463,418, making \$1,544,104. The institutions drew \$1,281,338, leaving balances of appropriations undrawn July 31, 1888, of \$262,766. The balance of current expense appropriations undrawn, increased from \$54,182 at the beginning to \$92,776 at the end of the biennial period.

Table "C" exhibits the accounts of the local treasurers of the several institutions. The total amount handled by them during the two years was \$1,425,096. The balances in their hands increased from \$47,204, at the beginning, to \$60,789 at the close of the biennial period. The soldier's home and the St. Cloud reformatory have no institution treasurers, but pay all of their accounts on warrants of the auditor of state.

Table "D" is a statement of indebtedness incurred and discharged. The total amount of indebtedness incurred during the two years was \$1,370,259. The amount paid was \$1,328,949. The indebtedness of the institutions was \$35,738 at the beginning, and \$77,049 at the close of the biennial period. Accounts are paid monthly, but the accounts of each month remain unpaid at the close of the month. The state holds in trust for the convicts at Stillwater the "good conduct fund," amounting, July 31, 1888, to \$16,360, which constitutes a part of the above mentioned indebtedness. The indebtedness outstanding July 31, 1888, included also unpaid orders on the institution treasurers to the amount of \$18,374, of which \$17,439 belonged to the school for dependent children at Owatonna.

Table "E" exhibits the surplus and deficit of current funds.

After allowing for all indebtedness belonging to the year ending July 31, 1886, there remained a surplus of funds appropriated for current expenses up to that date of \$61,626. The surplus from current appropriations for the year ending July 31, 1887, was \$65,761, and for the year ending July 31, 1888, \$32,581, making a total surplus of \$98,342 for the two years, of which \$74,117 was from the prison appropriation. Of this amount \$67,751 were paid back into the state treasury, leaving a net surplus July 31, 1888, of \$92,216, an increase of \$30,590 during the biennial period.

Two institutions show a deficit: The school for dependent children (\$2,447) and the soldiers' home (\$319). The deficit in the funds of the school for dependent children is due, partly, to extraordinary expenses paid from current funds and partly to the fact that the number of children has been larger than was expected. There will probably be some deficiency also for the year ending July 31, 1889. The per capita expenses of the institution show a steady decline with each quarterly report.

The soldiers' home deficit arose from extraordinary expenses, incident to the opening of a new institution, in temporary quarters. The board of trustees transferred \$5,000 from the soldiers' relief fund to the soldiers' home fund, for the year ending July 31, 1888; but this amount proved insufficient. The indications are, however, that the current expenses for the year 1888-89 will fall within the standing appropriation of \$20,000. Congress has passed a bill allowing \$100 per year toward the support of each soldier maintained in a state soldiers' home.

Table "F" is a classified statement of expenditures from appropriations for building, etc., amounting to \$179,261 for the year 1886-87 and \$175,219 for the year 1887-88; total, \$354,480.

Table "G" is a classified statement of expenditures from appropriations for current expenses for the two years amounting to \$395,728 for the year 1886-87, and \$403,902 for the year 1887-88; total, \$889,631, making a total expenditure for all purposes for the two years of \$1,244,111.

Table "H" is a comparative classified per capita statement of current expenses for the two years. The table shows a decided advance in the per capita cost of the second year over that of the first amounting to \$10 per inmate or about 5 per cent on the average. The increase is observable in nearly every item of the expenditure, the more important items being "attendance," "clothing" and "repairs."



Table "I" exhibits the subclassification of the "attendance" account showing the number of days service rendered and the amount paid for the same.

Table "J" is a per capita statement of the facts contained in table "H" showing the number of days service of each kind rendered for each inmate. This table is intended especially for the information of the superintendents and stewards of the institutions.

Table "K" is a statement of the subclassification of "attendance" showing the average price paid per day for salaries and wages under each department of service. In some branches of service the rates paid in the different institutions are very uniform; for instance female domestics receive 42 cents at St. Peter, 46 cents at Rochester, 48 cents at the deaf, 41 cents at the blind, 41 cents at the feeble-minded, 40 cents at the school for dependent children and 79 cents at the reform school. It is noticeable that the rates of wages paid to female employes at the reform school are very much in excess of those paid in the other state institutions. The guards at the state prison receive on the average twice as much as attendants performing similar service in other state institutions. Guards at the state prison average \$1.69 per day; overseers at the reform school \$1.32 per day; male attendants at the hospitals for insane from 81 cents to 83 cents per day.

Table "L" is a consolidated pay roll of the state correctional and charitable institution for the year ending July 31, 1887, giving the rates of compensation of the several kinds of service in detail.

Tables "M" and "N" exhibit the subclassification of food, showing the cost of nine classes of food and the same reduced to a per capita, but the per capita in this statement is based not upon the number of inmates of the institutions but upon the number of persons fed, including inmates, employes and members of employes families. This method of computing the cost of food is the only fair one. For example the cost of food for the school for the blind for the year 1887-88 was \$2,352, or at a rate of \$68.96 per inmate, apparently a very high rate, but the cost for each person fed was only \$43.95 while the cost for each person fed at the St. Peter hospital was \$45.27, so that the school for the blind fed an average of 53 persons at a lower rate per head than at the St. Peter hospital which fed on an average 1,065 persons. The lowest per capita is that of the school for depen-



dent children at Owatonna. This is due partly to the fact that the inmates are young children and partly to the fact that excellent cows are kept and milk is fed freely instead of meat. The cost of meat per capita was \$5.88 for the year 1887-88, whereas the next lowest was \$7.38 and the average was \$14.58 per capita. The low food per capita is accompanied by a high per capita for farm expenses.

There is a marked difference in the relative cost of certain articles of food, for example, "breadstuffs" for the deaf cost \$5.36 per capita in 1887 and \$5.79 in 1888, but for the blind "breadstuffs" cost \$8.40 per capita in 1887 and \$8.83 in 1888. On the other hand butter for the deaf cost \$8.66 per capita in 1887 and \$9.04 in 1888, but butter for the blind cost \$7.94 in 1887 and \$6.02 in 1888. Similar comparisons can readily be made by each reader for himself.

Table "O" exhibits the average price paid during each year for 28 staple articles of food for each institution. For the most part these prices show very close buying but there are some remarkable variations; for example, flour cost in the year 1887-88 \$3.24 per barrel at St. Peter, \$3.88 to \$3.97 at Stillwater, Rochester and Faribault, \$4.05 at Owatonna while the reform school paid \$4.35 per barrel and the soldiers' home, \$5 per barrel. Graham flour cost from \$3.34 at St. Peter to \$5.12 for the reform school. Corn meal cost 1.2 cents per pound at Rochester to 2.1 cents at the reform school. It is noticeable that wheat flour cost \$3.24 at St. Peter and \$3.91 at Rochester, while corn meal cost 1.2 cents at Rochester and 1.8 cents per pound at St. Peter. It is a fact proved by observation that all of these institutions have reasonably good bread.

There is a great diversity in the cost of meat, ranging from 5.7 cents at the state prison and Owatonna to 9 cents at the reform school.

There is a surprising difference in the prices of staple articles purchased by the steward at Faribault for the three institutions there; for example, coffee for the deaf cost 16.1 cents in the year 1886-87 and for the blind 21.9 cents but in 1887-88 it cost 21.8 for the deaf and 23.7 cents for the blind, a difference of nearly 6 cents per pound in the first year and a difference of only 2 cents in the second year. Prunes cost 4.3 cents for the deaf and 6.2 cents for the blind; syrup cost 45 cents per gallon for the deaf and only 35 cents for the blind. Tea in 1886-87 cost 35.7 cents for the deaf and 33.5 for the blind, but in 1887-88 the difference

was reversed, tea costing 31.5 cents for the deaf and 39 cents for the blind. It is difficult to discover the reasons for such wide variations. This table is commended to the careful consideration of the buyers for the several institutions.

Table "P" shows the cost of the 28 staple articles of food for each of nine institutions also how much more or less they would have cost if purchased at the average prices paid by all the institutions; for example these 28 articles cost for the prison last year \$15,800. Had they been purchased at the average price they would have cost \$17,315, or 9.6 per cent more than they did cost. The reform school purchases cost \$9,410. Had they been purchased at the average price, they would have cost \$8,214, or 12 per cent less.

Table "Q" shows the movement of population of the state institutions for the two years. There was an increase from 2,086 inmates Aug. 1, 1886, to 2,754 at July 31, 1888, an increase of about 30 per cent. The average number for the year 1886-87 was 2,408, and for the year 1887-88, 2,772, an increase of 15 per cent.

Table "R" shows the nativity of the parents of inmates received in state institutions. Of 2,600 inmates 1,659 are children of foreign born parents. Children of foreign born parents constitute 71.2 per cent of the population of the state, but form only 64 per cent of the population of the state institutions, contrary to the generally received opinion. Scandinavian parents furnish 25.1 per cent of the population and only 13 per cent of the inmates of the state institutions. On the other hand, the children of English speaking foreign parents (English, Irish, Scotch and Canadian), forming 19.1 per cent of the population, furnish 29.5 of the inmates of the institutions. Table "R" does not include the hospitals for the insane.

Table "S" shows the nativity of inmates of the hospitals for insane, convicts in the state prison and convicts in the St. Paul and Minneapolis city workhouses. This table differs from table "R" in that it gives the nationality of the inmates themselves, whereas table "R" gives the nationality of their parents. Table "S" shows a singular reversal of the facts concerning the Scandinavian population. Persons of Scandinavian birth form 16.5 per cent of the population of the state. They furnish only 8.8 per cent of the population of the state prison, but they furnish 28 per cent of the inmates of the insane hospitals. The foreign born population forms 38.2 per cent of the population of the state. It furnishes only 33.2 per cent of the population of the

state prison but it furnishes 61.9 of the population of the insane hospitals. In the cities of St. Paul and Minneapolis the foreign born population form 40 per cent of the population and furnish 51 per cent of the convicts.

In the cities of St. Paul and Minneapolis combined, the Scandinavian population furnish exactly their quota of the convicts. In table "S" it will be noticed that the English speaking immigrants again furnish much more than their share. They compose 8.5 per cent of the population and furnish 14 per cent of the insane and 13.5 per cent of the convicts. In St. Paul they compose 1.25 per cent of the population and furnish 25.7 per cent of the workhouse convicts. In Minneapolis they form 11 per cent of the population and furnish 27.4 per cent of the workhouse convicts.

In table "T" I am able to present for the first time a complete summary of the inventories of the state institutions, from which it will be seen that the total value of state property connected with these institutions is \$2,568,000, of which \$2,308,000 are in lands, buildings, etc., and \$260,000 (or 10 per cent) are in movable property.

The total capacity of these institutions, July 31, 1888, was 3,265 inmates. The average cost of lands and building per inmate has been \$798. The value of movable property per inmate is \$80; the most expensive plant per inmate being found naturally, and indeed, necessarily, in the smaller institutions.

Table "U" is a comparison of the nativity of state prison convicts in eight states of the Union. These states have been selected at random being those for which statistics were obtainable. They are Minnesota, Wisconsin, Iowa, Michigan, Illinois, Ohio, Pennsylvania and Massachusetts. They are representative Eastern and Western states. It is observable in the first place that Minnesota is the only one of the eight states in which the foreign nationalities furnish less than their share of the convicts. It is noticeable also that the Scandinavian and German races show a low rate of criminality in all of these states, while the English speaking immigrants furnish on the average one-third more than their share.

Table "V" shows the nativity of convicts in the city workhouses of seven cities. St. Paul, Minneapolis, Chicago, Cincinnati, Cleveland, Detroit and Milwaukee. It is observable that in the cities the foreign born form 37.7 of the population against 19.3 in the states at large. The foreign population of the cities



furnishes a larger ratio of criminality than the states at large. The 38 per cent of the foreign population in the cities furnish 48 per cent of the criminals, while the 19 per cent in the states furnish only 23 per cent of the criminals. This illustrates the fact that the criminal and vagrant element of the foreign population herd in the cities. The same general facts appear in table "T" as in table "S," viz., a low rate of criminality among the Scandinavian and German immigrants, and a high rate among the English speaking immigrants.

The uniformity of the facts that relate to the contribution of English speaking immigrants to the dependent and delinquent classes gives color to the oft repeated charges that paupers and criminals are designedly shipped to this country. It also suggests the question whether credit is not given to the prison systems of Great Britain and Ireland which in reality belongs to the efficiency of public officers' and prisoners' aid societies in inducing discharged convicts to emigrate to America.

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TABLE "A."—LIST OF TRUSTEES AND OFFICERS OF  
THE STATE CORRECTIONAL AND CHARITABLE IN-  
STITUTIONS.

HOSPITALS FOR INSANE.

*Board of Trustees.*

President, M. J. Daniels, Rochester.  
Secretary, A. L. Sackett, St. Peter.  
Treasurer, William Schimmel, St. Peter.  
H. B. Strait, Shakopee.  
John F. Meagher, Mankato.  
Alonzo Barto, Sauk Centre.  
Burr Deuel, Dodge Centre.  
M. R. Tyler, St. Paul.  
C. D. Wright, Fergus Falls.

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FIRST HOSPITAL FOR INSANE, ST. PETER—FOUNDED 1886.

Superintendent, Cyrus K. Bartlett, M. D.  
First assistant physician, John H. James, M. D.  
Second assistant physician, Arthur F. Kilbourne, M. D.  
Steward, C. F. Brown.



SECOND HOSPITAL FOR INSANE, ROCHESTER—FOUNDED 1878.

Superintendent, Jacob E. Bowers, M. D.  
 First assistant physician, Homer Collins, M. D.  
 Second assistant physician, Robert M. Phelps, M. D.  
 Steward, A. H. Kerr.

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THIRD HOSPITAL FOR INSANE, FERGUS FALLS—FOUNDED 1887.

(*Not yet opened.*)

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MINNESOTA INSTITUTE FOR DEFECTIVES, FARIBAULT.

(Comprising the schools for the deaf, blind, and feeble-minded.)

*Board of Directors.*

The governor, *ex-officio*.  
 The superintendent of public instruction, *ex-officio*  
 President, T. B. Clement, Faribault.  
 Secretary, R. A. Mott, Faribault.  
 Treasurer, Hudson Wilson, Faribault.  
 Anthony Kelly, Minneapolis.  
 G. E. Skinner, St. Paul.

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SCHOOL FOR THE DEAF—FOUNDED 1863.

Superintendent, J. L. Noyes.  
 Steward, H. E. Barron.  
 Matron, Mrs. M. S. Coe.

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SCHOOL FOR THE BLIND—FOUNDED 1863.

Superintendent, J. J. Dow.  
 Steward, H. E. Barron.  
 Matron, Miss Sarah D. Parsons.

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SCHOOL FOR THE FEEBLE-MINDED—FOUNDED 1878.

Superintendent, A. C. Rogers, M. D.  
 Assistant superintendent, J. Massey.  
 Steward, H. E. Barron.  
 Matron, Miss Naomi Pinch.

STATE PUBLIC SCHOOL FOR DEPENDENT CHILDREN, OWATONNA—  
FOUNDED 1885.*Board of Control.*

B. B. Herbert, Red Wing.

C. S. Crandall, Owatonna.

L. P. Dodge, Farmington.

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Superintendent, Galen A. Merrill.

Clerk, H. W. Lewis.

Treasurer, A. C. Gutterson.

Matron, Mrs. S. J. McCulloch.

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## STATE REFORM SCHOOL, ST. PAUL—FOUNDED 1867.

*Board of Managers.*

C. H. Pettit, Minneapolis.

W. P. Murray, St. Paul.

F. A. Husher, Minneapolis.

F. W. Hoyt, Red Wing.

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Superintendent, J. W. Brown.

Assistant superintendent, W. F. Hewitt.

Treasurer, Second National Bank.

Secretary, F. McCormick.

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## STATE REFORMATORY, ST. CLOUD—FOUNDED 1887.

(Not yet opened.)

*Board of Managers.*

President, Gordon E. Cole, Faribault.

John Cooper, St. Cloud.

R. A. Smith, St. Paul.

H. S. Griswold, Chatfield.

T. H. Barrett, Herman.

Charles Keith, Princeton.

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Superintendent, D. E. Meyers.

STATE PRISON, STILLWATER—FOUNDED 1851.

*Board of Inspectors.*

President, A. K. Doe, Stillwater.  
John F. Norrish, Hastings.  
Edwin Dunn, Eyota.

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Warden, H. G. Stordock.  
Deputy warden, J. A. Westby.  
Clerk, Frank Berry.  
Physician, W. H. Pratt, M. D.  
Chaplains, Rev. J. H. Albert.  
Rev. M. E. Murphy.  
Matron, Mrs. Virginia Cayou.

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STATE SOLDIERS' HOME—FOUNDED 1887.

*Board of Trustees.*

President, Henry A. Castle, St. Paul.  
Vice president, R. R. Henderson, Minneapolis.  
L. A. Hancock, Red Wing.  
W. P. Dunnington, Redwood Falls.  
T. F. Cowing, Fergus Falls.  
A. A. Brown, Alexandria.  
A. E. Christie, Austin.

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Commandant, Thomas McMillan.  
Secretary, O. M. Sawyer.  
Surgeon, A. A. Ames, M. D.  
Chaplain, Rev. Horace Worden.

TABLE "B."

STATEMENT OF ALL APPROPRIATIONS, CURRENT AND SPECIAL,  
THE TWO YEARS ENDING JULY 31, 1888, AS SHOWN

	HOSPITALS FOR INSANE.			Soldiers Home at Minneapolis
	Fergus Falls Hospital.	St. Peter Hospital.	Rochester Hospital.	
YEAR ENDING JULY 31, 1887.				
APPROPRIATIONS, DR.				
Old appropriations, special, undrawn Aug. 1, 1886 .....		\$15,000.00	\$1,500.00	.....
Old appropriations, current, undrawn Aug. 1, 1886 .....		18,076.39	13,709.99	.....
Appropriations, special, for the years 1886-87..	\$44,280.00	43,000.00	56,750.00	\$10,000.00
Appropriation for insuring state institutions.				
Appropriations, current, for the year 1886-7...		150,280.00	106,080.00	.....
	\$44,280.00	\$226,356.39	\$178,039.99	\$10,000.00
APPROPRIATIONS, CR.				
Appropriations, special, drawn since July 31, 1886 .....	\$26,280.00	\$35,500.00	\$36,250.00	\$1,054.58
Appropriations, current, drawn since July 31, 1886 .....		140,555.00	104,008.12	.....
Appropriations, special, undrawn July 31, '87.	18,000.00	22,500.00	22,000.00	8,945.42
Appropriations, current, undrawn July 31, '87		27,801.39	15,781.87	.....
	\$44,280.00	\$226,356.39	\$178,039.99	\$10,000.00
YEAR ENDING JULY 31, 1888.				
APPROPRIATIONS, DR.				
Old appropriations, special, undrawn Aug. 1, 1887 .....	\$18,000.00	\$22,500.00	\$22,000.00	\$8,945.42
Old appropriations, current, undrawn Aug. 1, '87		27,801.39	15,781.87	
Appropriations, special, for the year 1887-8....	25,000.00		1,500.00	40,000.00
Appropriations for insuring state institutions			1,572.08	
Appropriations, current, for the year 1887-8...		163,800.00	131,040.00	10,000.00
Transferred from soldiers relief fund.....				5,000.00
	\$43,000.00	\$214,101.39	\$171,893.95	\$63,945.42
APPROPRIATIONS, CR.				
Appropriations, special, drawn since July 31, 1887 .....	\$20,000.00	\$10,000.00	\$23,572.08	\$9,252.64
Appropriations, current, drawn since July 31, 1887 .....		164,298.07	127,708.57	14,990.85
Appropriations, special, undrawn July 31, '88.	23,000.00	12,500.00	1,500.00	39,692.78
Appropriations, current, undrawn July 31, '88.		27,303.32	19,113.30	9.15
	\$43,000.00	\$214,101.39	\$171,893.95	\$63,945.42
TWO YEARS ENDING JULY 31, 1888.				
(CURRENT AND SPECIAL APPROPRIATIONS COMBINED.) DR.				
Current and special appropriations undrawn Aug. 1, 1886 .....		\$33,076.39	\$15,209.99	.....
Current and special appropriations for the two years.....	\$69,280.00	\$57,080.00	296,942.08	\$65,000.00
CR.				
	\$69,280.00	\$390,156.39	\$312,152.07	\$65,000.00
Appropriations drawn during the two years..	\$46,280.00	\$350,353.07	\$291,538.77	\$25,298.07
Current and special appropriations undrawn July 31, 1888.....	23,000.00	39,803.32	20,613.30	39,701.93
	\$69,280.00	\$390,156.39	\$312,152.07	\$65,000.00



TABLE "B."

FOR STATE CORRECTIONAL AND CHARITABLE INSTITUTIONS FOR  
BY THE BOOKS OF THE AUDITOR OF STATE.

INSTITUTE FOR DEFECTIVES AT FARIBAULT.			School for Dependent Children at Owatonna.	CORRECTIONAL INSTITUTIONS.			Totals.
School for the Deaf.	School for the Blind.	School for the Feeble- Minded.		Prison at Stillwater.	Reform School at St. Paul.	Reforma- tory at St. Cloud.	
		\$5,000.00	\$1,000.00	\$4.67	\$4,000.00		\$26,504.67
a\$12,540.99				9,854.44			54,181.81
		17,500.00	16,174.52	55,000.00			242,704.52
412.50				1,891.04			2,303.54
85,000.00			8,825.48	75,000.00	35,000.00		460,185.48
\$97,953.49		\$22,500.00	\$26,000.00	\$141,750.15	\$39,000.00		\$785,880.02
\$412.50		\$15,000.00	\$17,174.52	\$31,891.04	\$4,000.00		\$167,562.64
74,874.20			6,852.36	63,417.27	35,000.00		424,706.95
		7,500.00		25,004.67			103,950.09
22,666.79			1,973.12	21,437.17			89,660.34
\$97,953.49		\$22,500.00	\$26,000.00	\$141,750.15	\$39,000.00		\$785,880.02
		\$7,500.00		\$25,004.67			\$103,950.09
a\$22,666.79			\$1,973.12	21,437.17			89,660.34
		45,000.00	35,000.00	30,000.00	\$2,754.56	\$50,000.00	229,254.56
637.50	\$75.00	275.00	344.25	1,226.17			4,130.00
90,000.00			12,000.00	73,000.00	40,000.00		519,840.00
							5,000.00
\$113,304.29	\$75.00	\$52,775.00	\$49,317.37	\$150,668.01	\$42,754.56	\$50,000.00	\$951,834.99
\$637.50	\$75.00	\$27,775.00	\$35,344.25	\$27,177.68	\$754.56	\$12,755.58	\$167,344.29
95,078.30			13,384.71	74,892.82	31,370.79		521,724.11
		25,000.00		29,053.16	2,000.00	37,244.42	169,990.36
17,588.49			588.41	19,544.35	8,629.21		92,776.23
\$113,304.29	\$75.00	\$52,775.00	\$49,317.37	\$150,668.01	\$42,754.56	\$50,000.00	\$951,834.99
a\$12,540.99		\$5,000.00	\$1,000.00	\$9,859.11	\$4,000.00		\$80,686.48
176,050.00	\$75.00	62,775.00	72,344.25	236,117.21	77,754.56	\$50,000.00	1,463,418.10
\$188,590.99	\$75.00	\$67,775.00	\$73,344.25	\$245,976.32	\$31,754.56	\$50,000.00	\$1,544,104.58
\$171,002.50	\$75.00	\$42,775.00	\$72,755.84	\$197,378.81	\$71,125.35	\$12,755.58	\$1,281,387.99
17,588.49		25,000.00	588.41	48,597.51	10,629.21	37,244.42	262,766.59
\$188,590.99	\$75.00	\$67,775.00	\$73,344.25	\$245,976.32	\$31,754.56	\$50,000.00	\$1,544,104.58

a Current appropriations for the deaf, blind and feeble-minded from a common fund.

TABLE "C."

STATEMENT OF THE ACCOUNTS OF THE LOCAL TREASURERS OF  
THE TWO YEARS ENDING JULY 31, 1888, AS  
STATE BOARD OF CORREC-

	HOSPITALS FOR INSANE. William Schimmel, Treasurer.		
	Hospital at Fergus Falls.	Hospital at St. Peter.	Hospital at Rochester.
YEAR ENDING JULY 31, 1887.			
SPECIAL FUNDS, DR.			
Cash on hand Aug. 1, 1888.....		\$7,690.59	b 1.07
Cash from state.....	\$26,280.00	35,500.00	\$36,250.00
Cash from visitors' fees.....			
	\$26,280.00	\$43,190.59	\$36,248.93
SPECIAL FUNDS, CR.			
Orders paid.....	\$25,572.29	\$41,165.81	\$34,993.34
Cash on hand July 31, 1887.....	707.71	2,024.78	1,255.59
	\$26,280.00	\$43,190.59	\$36,248.93
CURRENT FUNDS, DR.			
Cash on hand Aug. 1, 1886.....		b .10	\$1,043.80
Cash from state.....		\$140,555.00	104,008.12
Cash from board of inmates.....			
Cash from miscellaneous receipts.....		4,261.13	126.27
Cash from rent of shops (\$1,500) and convict labor.....			
		\$144,816.03	\$105,178.19
CURRENT FUNDS, CR.			
Orders paid.....		\$140,114.47	\$105,125.62
Paid inmates (petty cash).....			
Paid state treasurer.....			
Cash on hand July 31, 1887.....		4,701.56	52.57
		\$144,816.03	\$105,178.19

TABLE "C."

THE STATE CORRECTIONAL AND CHARITABLE INSTITUTIONS FOR  
SHOWN BY THEIR MONTHLY REPORTS TO THE  
TIONS AND CHARITIES (a).

INSTITUTE FOR DEFECTIVES, FARIBAULT Hudson Wilson, Treasurer.			School for Dependent Children at Owatonna, A. C. Gut- tersen, Treasurer.	CORRECTIONAL INSTITUTIONS.		Totals.
School for the Deaf.	School for the Blind.	School for the Feeble- Minded.		Prison at Stillwater. H. G. Stor- dock, Treasurer.	Reform School at St. Paul, Second Na- tional Bank, Treasurer.	
\$293.22 412.50	\$195.00	\$10,956.70 15,000.00	\$232.62 17,174.52	\$17.17 31,891.04 547.05	\$4,000.00	\$19,384.23 166,508.06 547.05
\$705.72	\$195.00	\$25,956.70	\$17,407.14	\$32,455.26	\$4,000.00	\$186,439.34
\$687.50 18.22	\$195.00	\$25,967.00 b 10.30	\$17,407.14	\$32,218.35 236.91	c \$4,000.00	\$182,206.43 4,232.91
\$705.72	\$195.00	\$25,956.70	\$17,407.14	\$32,455.26	\$4,000.00	\$186,439.34
\$3,518.56 35,908.02 855.54 2,724.20	\$577.99 12,544.02 182.05	\$1,731.92 26,422.16 158.13	\$6,852.36 40.30	\$14,041.91 63,417.27 948.00 3,117.97 41,551.03	\$6,905.75 35,000.00 11,445.43	\$27,819.83 424,706.95 1,303.54 22,055.48 41,551.03
\$42,506.32	\$13,304.06	\$28,312.21	\$6,892.66	\$123,076.18	\$53,351.18	\$517,436.83
\$37,854.48	\$13,003.71	\$27,898.34	\$6,838.30	\$73,868.37 2,483.04 33,500.00 13,224.77	\$34,295.30	\$438,998.59 2,483.04 33,500.00 42,455.20
4,651.84	300.35	413.87	54.36		19,055.88	
\$42,506.32	\$13,304.06	\$28,312.21	\$6,892.66	\$123,076.18	\$53,351.18	\$517,436.83

TABLE "C"—CONTINUED.

	HOSPITALS FOR INSANE. William Schimmel, Treasurer.		
	Hospital at Fergus Falls.	Hospital at St. Peter.	Hospital at Rochester.
YEAR ENDING JULY 31, 1888.			
SPECIAL FUNDS, DR.			
Cash on hand Aug. 1, 1887.....	\$707.71	\$2,024.78	\$1,255.59
Cash from state.....	20,000.00	10,000.00	23,572.08
Cash from miscellaneous receipts.....			161.75
	\$20,707.71	\$12,024.78	\$24,989.42
SPECIAL FUNDS, CR.			
Orders paid.....	\$8,983.21	\$9,300.66	\$23,730.02
Cash on hand July 31, 1888.....	11,724.50	2,724.12	1,259.40
	\$20,707.71	\$12,024.78	\$24,989.42
CURRENT FUNDS, DR.			
Cash on hand Aug. 1, 1887.....		\$4,701.56	\$52.57
Cash from state.....		164,298.07	127,708.57
Cash from board of inmates.....			
Cash from miscellaneous receipts.....		4,086.74	343.01
Cash from rent of shops (\$1,500) and convict labor.....			
Cash from inmates (petty cash).....			
		\$173,086.37	\$128,104.15
CURRENT FUNDS, CR.			
Orders paid.....		\$166,384.88	\$127,233.92
Paid inmates (petty cash).....			
Paid state treasurer.....		100.00	
Cash on hand July 31, 1888.....		6,601.49	870.23
		\$173,086.37	\$128,104.15
TWO YEARS ENDING JULY 31, 1888.			
(CURRENT AND SPECIAL FUNDS COMBINED.)			
Cash on hand Aug. 1, 1886.....		\$7,690.49	\$1,042.73
Cash received during the two years.....	46,280.00	\$358,700.94	\$292,169.80
	\$46,280.00	\$366,391.43	\$293,212.53
Cash paid out during the two years.....	\$34,555.50	\$357,065.82	\$291,082.90
Cash on hand July 31, 1888.....	11,724.50	9,325.61	2,129.63
	\$46,280.00	\$366,391.43	\$293,212.53

- (a) The State Soldiers' Home and the St. Cloud Reformatory have no local treasurers but pay  
 (b) Overdraft. (c) Applied on current expenses.



TABLE "C"—CONTINUED.

INSTITUTE FOR DEFECTIVES, FARIBAULT. Hudson Wilson, Treasurer.			School for Dependent Children at Owatonna, A. C. Gut- tersen, Treasurer.	CORRECTIONAL INSTITUTIONS.		TOTALS.
School for the Deaf.	School for the Blind.	School for the Feeble- Minded.		Prison at Stillwater, H. G. Stor- dock, Treasurer.	Reform School at St. Paul, Second Nat- ional Bank, Treasurer.	
\$18.22 637.50		b \$10.30 \$27,775.00	\$35,344.25 .29	\$236.91 27,177.65 967.60		\$4,232.91 144,581.48 1,129.64
\$655.72	\$75.00	\$27,764.70	\$35,344.54	\$28,382.16		\$149,944.03
\$555.72 100.00	\$75.00	\$20,427.06 7,337.64	\$35,344.54	\$27,992.08 390.08		\$126,408.29 23,535.74
\$655.72	\$75.00	\$27,764.70	\$35,344.54	\$28,382.16		\$149,944.03
\$4,651.84 39,208.86 200.00 3,012.29	\$300.35 13,221.05 544.05	\$413.87 42,648.39 32.50 307.54	\$54.36 13,384.71	\$13,224.77 74,892.82 1,410.90 163.74 49,235.68 3,359.60	\$19,055.88 31,370.79 6,079.62	\$42,455.20 506,733.26 1,643.40 14,536.99 49,235.68 3,359.60
\$47,072.99	\$14,065.45	\$43,402.30	\$13,439.07	\$142,287.51	\$56,506.29	\$617,964.13
\$43,508.14	\$13,575.70	\$42,924.53	\$13,387.91	\$85,342.04 3,833.07 34,251.34 18,861.06	\$50,168.86	\$542,525.98 3,833.07 34,351.34 37,253.74
\$47,072.99	\$14,065.45	\$43,402.30	\$13,439.07	\$142,287.51	\$56,506.29	\$617,964.13
\$3,811.78 82,458.91	\$772.99 26,566.07	\$12,688.62 112,343.72	\$232.62 72,796.43	\$14,059.08 298,680.35	\$6,905.75 87,895.84	\$47,204.06 1,377,892.16
\$86,270.69	\$27,339.16	\$125,032.34	\$73,029.05	\$312,739.43	\$94,801.59	\$1,425,096.22
\$82,605.84 3,664.85	\$26,849.41 489.75	\$117,216.93 7,815.41	\$72,977.89 51.16	\$293,488.29 19,251.14	\$88,464.16 6,337.43	\$1,364,306.74 60,789.48
\$86,270.69	\$27,339.16	\$125,032.34	\$73,029.05	\$312,739.43	\$94,801.59	\$1,425,096.22

all bills through the state treasury on warrants of the auditor of state.

(d) Of this amount \$4,000 were used for special expenses.

TABLE "D."

STATEMENT OF INDEBTEDNESS INCURRED AND DISCHARGED FOR  
THE TWO YEARS ENDING JULY 31, 1888, AS SHOWN  
OFFICERS TO THE STATE BOARD

	HOSPITALS FOR INSANE.			Soldiers' Home at Minneapolis, O. M. Sawyer, Secretary.
	Hospital at Fergus Falls, Wm. Schimmel, Treasurer.	Hospital at St. Peter, C. F. Brown, Steward.	Hospital at Rochester, A. H. Kerr, Steward.	
YEAR ENDING JULY 31, 1887.				
ACCOUNTS PAYABLE, CR.				
Special accounts contracted since July 31, 1886.	\$25,572.29	\$41,165.81	\$34,993.34	\$1,054.58
Current accounts payable Aug. 1, 1886.....		3,939.41	10,313.11	
Current accounts contracted since July 31, 1886.		146,332.19	103,737.02	
	\$25,572.29	\$191,437.41	\$149,043.47	\$1,054.58
ACCOUNTS PAYABLE, DR.				
Special accounts paid during the year.....	\$25,572.29	\$41,165.81	\$34,993.34	\$1,054.58
Current accounts paid during the year.....		140,114.47	105,125.62	
Current accounts payable July 31, 1887, (a).....		10,157.13	8,924.51	
	\$25,572.29	\$191,437.41	\$149,043.47	\$1,054.58
Orders outstanding July 31, 1887, (included above).....		\$427.32		
YEAR ENDING JULY 31, 1888.				
ACCOUNTS PAYABLE, CR.				
Special accounts contracted since July 31, 1887..	\$13,145.30	\$9,718.40	\$23,730.02	\$9,252.64
Current accounts payable Aug. 1, 1887.....		10,157.13	8,924.51	
Current accounts contracted since July 31, 1887.		168,620.31	125,305.87	15,318.71
	\$13,145.30	\$188,495.84	\$157,960.40	\$24,571.35
ACCOUNTS PAYABLE, DR.				
Special accounts paid during the year.....	\$8,983.21	\$9,300.66	\$23,730.02	\$9,252.64
Current accounts paid during the year.....		166,384.88	127,233.92	14,990.85
Special accounts payable July 31, 1888, (a).....	4,162.09	417.74		
Current accounts payable July 31, 1888, (a).....		12,392.56	6,996.46	327.86
	\$13,145.30	\$188,495.84	\$157,960.40	\$24,571.35
Orders outstanding July 31, 1888, (included above).....		\$432.88		
TWO YEARS ENDING JULY 31, 1888.				
(Current and Special Accounts Combined)				
ACCOUNTS PAYABLE, CR.				
Accounts payable Aug. 1, 1886.....	\$38,717.59	\$3,939.41	\$10,313.11	\$25,625.93
Accounts contracted during the two years.....		365,836.71	287,766.25	
	\$38,717.59	\$369,776.12	\$298,079.36	\$25,625.93
ACCOUNTS PAYABLE, DR.				
Accounts paid during the two years.....	\$34,555.50	\$356,965.82	\$291,082.90	\$25,298.07
Accounts payable, current and special, July 31, 1888 (a).....	4,162.09	12,810.30	6,996.46	327.86
	\$38,717.59	\$369,776.12	\$298,079.36	\$25,625.93

(a.) Including orders on institution treasurer outstanding, not yet presented.

TABLE "D."

THE STATE CORRECTIONAL AND CHARITABLE INSTITUTIONS FOR  
BY THE MONTHLY REPORTS OF THE ACCOUNTING  
OF CORRECTIONS AND CHARITIES.

INSTITUTE FOR DEFECTIVES AT FARIBAULT, H. E. Barron, Steward.				CORRECTIONAL INSTITUTIONS.			TOTALS.
School for the Deaf.	School for the Blind.	School for the Feeble- Minded.	School for Dependent Children at Owatonna, H. W. Lewis, Clerk.	Prison at Stillwater, Frank Berry, Clerk.	Reform School at St. Paul, F. McCor- mick, Sec- retary.	Reforma- tory at St. Cloud, D. E. Myers, Superin- tendent.	
\$687.50	\$195.00	\$25,967.00	\$17,407.14	\$32,218.35	.....	.....	\$179,261.01
2,181.00	577.99	1,731.92	.....	16,994.97	.....	.....	35,738.40
39,480.00	13,075.95	30,186.83	7,891.80	76,868.60	\$41,920.26	.....	459,492.65
\$42,348.50	\$13,848.94	\$57,885.75	\$25,298.94	\$126,081.92	\$41,920.26	.....	\$674,492.06
\$687.50	\$195.00	\$25,967.00	\$17,407.14	\$32,218.35	.....	.....	\$179,261.01
37,854.48	13,003.71	27,898.34	6,838.30	73,868.37	\$38,295.30	.....	442,998.59
3,806.52	650.23	4,020.41	1,053.50	19,995.20	3,624.96	.....	52,232.46
\$42,348.50	\$13,848.94	\$57,885.75	\$25,298.94	\$126,081.92	\$41,920.26	.....	\$674,492.06
\$234.54	\$118.30	255.74	.....	.....	.....	.....	\$1,035.90
\$555.72	\$75.00	\$20,427.06	\$52,782.74	\$28,022.08	\$4,754.56	\$12,755.58	\$175,219.10
3,806.52	650.23	4,020.41	1,053.50	19,995.20	3,624.96	.....	52,232.46
41,013.76	13,540.26	41,555.74	15,421.18	88,873.88	46,636.57	.....	556,286.28
\$45,376.00	\$14,265.49	\$66,003.21	\$69,257.42	\$136,891.16	\$55,016.09	\$12,755.58	\$783,737.84
\$555.72	\$75.00	\$20,427.06	\$35,344.54	\$27,992.08	\$4,754.56	\$12,755.58	\$153,171.07
43,508.14	13,575.70	42,924.53	13,387.91	85,342.04	46,168.86	.....	553,516.83
.....	.....	.....	17,438.20	30.00	.....	.....	22,048.03
1,312.14	614.79	2,651.62	3,086.77	23,527.04	4,092.67	.....	55,001.91
\$45,376.00	\$14,265.49	\$66,003.21	\$69,257.42	\$136,891.16	\$55,016.09	\$12,755.58	\$783,737.84
\$145.88	\$56.10	\$256.57	\$17,439.36	.....	\$42.93	.....	\$18,373.72
\$2,181.00	\$577.99	\$1,731.92	.....	\$16,994.97	.....	.....	\$35,738.40
81,736.98	26,886.21	118,136.63	\$93,502.86	225,982.91	\$93,311.39	\$12,755.58	1,370,259.04
\$83,917.98	\$27,464.20	\$119,868.55	\$93,502.86	\$242,977.88	\$93,311.39	\$12,755.58	\$1,405,997.44
\$32,605.84	\$26,849.41	\$117,216.93	\$72,979.05	\$219,420.84	\$89,218.72	\$12,755.58	\$1,328,948.66
1,312.14	614.79	2,651.62	20,523.81	23,557.04	4,092.67	.....	77,048.78
\$83,917.98	\$27,464.20	\$119,868.55	\$93,502.86	\$242,977.88	\$93,311.39	\$12,755.58	\$1,405,997.44

(b.) Of this amount \$4,000 were paid from the current expense appropriation.

TABLE "E."

STATEMENT SHOWING SURPLUS AND DEFICIT OF FUNDS  
CORRECTIONAL AND CHARITABLE INSTITUTIONS

	HOSPITALS FOR INSANE.		Soldiers' Home at Minneapolis.
	Hospital at St. Peter.	Hospital at Rochester.	
YEAR ENDING JULY 31, 1887.			
SURPLUS AND DEFICIT (CURRENT FUNDS.)			
Cr.			
Surplus from current funds, Aug. 1, 1886.....	\$14, 136.88	\$4, 440.68	
Appropriations for the year ending July 31, 1887.....	150, 280.00	106, 080.00	
Received for board of inmates.....			
	\$164, 416.88	\$110, 520.68	
Dr.			
Current expenses (net) for the year.....	\$142, 071.06	\$103, 610.75	
Paid over to the state treasurer.....			
Surplus from current funds July 31, 1887.....	22, 345.82	6, 909.93	
	\$164, 416.88	\$110, 520.68	
SITUATION OF THE SURPLUS, JULY 31, 1887.			
Appropriations, current, undrawn July 31, 1887.....	\$27, 801.39	\$15, 781.87	
Cash in institution treasuries.....	4, 701.56	52.57	
Prison earnings, uncollected July 31, 1887.....			
Total assets.....	\$32, 502.95	\$15, 834.44	
Deduct accounts payable July 31, 1887.....	10, 157.13	8, 924.51	
Net surplus (as above).....	\$22, 345.82	\$6, 909.93	
YEAR ENDING JULY 31, 1888.			
SURPLUS AND DEFICIT (CURRENT FUNDS.)			
Cr.			
Surplus from current funds Aug. 1, 1887.....	\$22, 345.82	\$6, 909.93	
Received for board of inmates.....			
Appropriations for the year ending July 31, 1888.....	163, 800.00	131, 040.00	\$15, 000.00
Deficit of current funds July 31, 1888.....			318 71
	\$186, 145.82	\$137, 949.93	\$15, 318.71
Dr.			
Current expenses (net) for the year.....	\$163, 795.86	\$124, 962.86	\$15, 318.71
Paid over to the itate treasurer.....			
Surplus from current funds July 31, 1888.....	22, 349.96	12, 987.07	
	\$186, 145.82	\$137, 949.93	\$15, 318.71
SITUATION OF THE SURPLUS JULY 31, 1888.			
Appropriations, current, undrawn July 31, 1888.....	\$27, 303.32	\$19, 113.30	\$9.15
Cash in institution treasuries.....	6, 601.49	870.23	
Earnings and receipts uncollected July 31, 1888.....	837.71		
Total assets.....	\$34, 742.52	\$19, 983.53	\$9.15
Deduct accounts payable July 31, 1888.....	12, 392.56	6, 996.46	327.86
Net surplus (as above).....	\$22, 349.96	\$12, 987.07	b\$318.71

(a) Current appropriations for the deaf, blind and feeble-minded form a common fund.

(b) Deficit.

(c) Includes \$4,000 special appropriation to be drawn to replace \$4,000 advanced from current



TABLE "E."

APPROPRIATED FOR THE CURRENT EXPENSES OF THE STATE  
FOR THE TWO YEARS ENDING JULY 31, 1888.

INSTITUTE FOR DEFECTIVES AT FARIBAULT.			School for Dependent Children at Owatonna.	CORRECTIONAL INSTITUTIONS.		TOTALS.
School for the Deaf.	(a) School for the Blind.	(a) School for the Feeble- Minded.		Prison at Stillwater.	Reform School at St. Paul.	
\$13,878.55				\$18,264.04	\$10,905.75	\$61,625.90
85,000.00			\$8,825.48	75,000.00	35,000.00	460,185.48
355.54				948.00		1,303.54
\$99,234.09			\$8,825.48	\$94,212.04	\$45,905.75	\$523,114.92
\$79,678.40			\$7,851.50	\$32,041.59	\$30,474.83	\$395,728.13
19,555.69			973.98	35,500.00		33,500.00
				28,670.45	15,430.92	93,886.79
\$99,234.09			\$8,825.48	\$94,212.04	\$45,905.75	\$523,114.92
\$22,666.79			\$1,973.12	\$21,437.17		\$89,660.34
5,366.06			54.36	12,465.94	\$19,055.88	41,696.37
				14,762.54		14,762.54
\$28,032.85			\$2,027.48	\$48,665.65	\$19,055.88	\$146,119.25
8,477.16			1,053.50	19,995.20	3,624.96	52,232.46
\$19,555.69			\$973.98	\$28,670.45	\$15,430.92	\$93,886.79
\$19,555.69			\$973.98	\$28,670.45	\$15,430.92	\$93,886.79
232.50				1,410.90		1,643.40
90,000.00			12,000.00	73,000.00	40,000.00	524,840.00
			2,447.20			2,765.91
\$109,788.19			\$15,421.18	\$103,081.35	\$55,430.92	\$623,136.10
\$92,245.88			\$15,421.18	\$42,201.06	\$39,956.95	\$493,902.50
17,542.31				31,251.34		34,251.34
				26,628.95	15,473.97	94,982.26
\$109,788.19			\$15,421.18	\$103,081.35	\$55,430.92	\$623,136.10
\$17,588.49			\$588.41	\$19,544.35	\$12,629.21	\$96,776.23
4,532.37			51.16	18,575.70	6,337.43	36,968.38
				12,035.94	600.00	13,473.65
\$22,120.86			\$639.57	\$50,155.99	\$19,566.64	\$147,218.26
4,578.55			3,086.77	23,527.04	4,092.67	55,001.91
\$17,542.31			\$2,447.20	\$26,628.95	\$15,473.97	\$92,216.35

expense appropriation for building new cottage.

TABLE "F."

CLASSIFIED STATEMENT OF EXPENDITURES FROM SPECIAL  
CORRECTIONAL AND CHARITABLE INSTITUTIONS

CLASSIFICATION.	HOSPITALS FOR INSANE.			Soldiers' Home at Minneapolis.
	Hospital at Fergus Falls.	Hospital at St. Peter.	Hospital at Rochester.	
YEAR ENDING JULY 31, 1887.				
1. Attendance.....				\$109.33
3. Bedding.....		\$2,667.12		
8. Freight and transportation.....		71.43		945.25
10. Books, stationery and printing.....	\$30.50	11.50		
12. Household supplies.....		967.86		
13. Furniture and upholstery.....		2,582.55		
14. Building and improvements.....	1,000.00	30,989.87	\$32,961.52	
14. Extraordinary repairs.....		3,177.05	1,931.82	
16. Farm, garden, stock and grounds.....				
17. Insurance.....				
19. Land.....	24,280.00			
19. Expenses not classified.....	261.79	698.43	100.00	
Totals for the year ending July 31, 1887.....	\$25,572.29	\$41,165.81	\$34,993.34	\$1,054.58
YEAR ENDING JULY 31, 1888.				
1. Attendance.....				\$1,381.36
3. Bedding.....		\$1,840.81	\$1,306.08	
8. Freight and transportation.....	\$520.58	31.33		280.84
10. Books, advertising, etc.....	123.36			
12. Household supplies.....		165.90		
13. Furniture and upholstery.....	2.50		828.71	
14. Building and improvements.....	12,220.62	6,461.14	19,023.15	7,400.00
15. Tools and machinery.....		719.22	1,000.00	
16. Farm, garden, stock and grounds.....				190.44
17. Insurance.....			1,572.08	
19. Expenses not classified.....	278.24			
19. Land.....		500.00		
Totals for the year ending July 31, 1888....	\$13,145.30	\$9,718.40	\$23,730.02	\$9,252.64
TWO YEARS ENDING JULY 31, 1888.				
1. Attendance.....				\$1,490.69
3. Bedding.....		\$4,507.93	\$1,306.08	
8. Freight and transportation.....	\$520.58	102.76		1,226.09
10. Books, printing, advertising, etc.....	153.86	11.50		
12. Household supplies.....		1,133.76		
13. Furniture and upholstering.....	2.50	2,582.55	828.71	
14. Building and improvements.....	13,220.62	37,451.01	51,984.67	7,400.00
14. Extraordinary repairs.....		3,177.05	1,931.82	
15. Tools and machinery.....		719.22	1,000.00	
16. Farm, garden, stock and grounds.....				190.44
17. Insurance.....			1,572.08	
19. Land.....	24,280.00	500.00		
19. Expenses not classified.....	540.03	698.43	100.00	
Total for two years ending July 31, 1888....	\$38,717.59	\$50,884.21	\$58,723.36	\$10,307.22

TABLE "F."

APPROPRIATIONS FOR LANDS, BUILDINGS, ETC., FOR THE STATE DURING THE TWO YEARS ENDING JULY 31, 1888.

INSTITUTE FOR DEFECTIVES AT FARIBAULT.			CORRECTIONAL INSTITUTIONS.				TOTALS.
School for the Deaf.	School for the Blind.	School for the Feeble- Minded.	School for Dependent Children at Owatonna.	Prison at Stillwater.	Reform School at St. Paul.	Reforma- tory at St. Cloud.	
							\$109.33
			\$907.76				3,574.88
			300.00				1,316.68
				\$327.31			369.31
			414.66				1,382.52
			954.76				3,537.31
		\$23,245.00	13,423.73	30,000.00			131,620.12
			1,076.43				5,108.87
			120.00	1,891.04			1,076.43
\$687.50	\$195.00	345.00					3,238.54
		2,377.00					26,657.00
			209.80				1,270.02
\$687.50	\$195.00	\$25,967.00	\$17,407.14	\$32,218.35			\$179,261.01
						\$2,774.95	\$4,156.31
							3,146.89
			\$258.25			621.04	1,712.04
		\$14.60	18.00	\$844.43		227.07	1,227.46
							165.90
			227.06				1,058.27
\$18.22		20,112.46	49,572.43	24,326.48	\$4,000.00	7,447.97	150,582.47
			1,179.27				2,898.49
			1,046.86			1,681.20	2,918.50
537.50	\$75.00	275.00	344.25	1,226.17			4,030.00
		25.00	136.62	1,625.00	754.56	3.35	2,822.77
							500.00
\$555.72	\$75.00	\$20,427.06	\$52,782.74	\$28,022.08	\$4,754.56	\$12,755.58	\$175,219.10
						\$2,774.95	\$4,265.64
			\$907.76				6,721.77
			558.25			621.04	3,028.72
		\$14.60	18.00	\$1,171.74		227.07	1,596.77
			414.66				1,548.42
			1,181.82				4,595.58
\$18.22		43,357.46	62,996.16	54,326.48	\$4,000.00	7,447.97	282,202.59
			1,179.27				5,108.87
			2,123.29			1,681.20	2,898.49
1,225.00	\$270.00	620.00	464.25	3,117.21			3,994.93
		2,377.00					7,268.54
		25.00	346.42	1,625.00	754.56	3.35	27,157.00
							4,092.79
\$1,243.22	\$270.00	\$46,394.06	\$70,189.88	\$60,240.43	\$4,754.56	\$12,755.58	\$354,480.11

a. Paid from appropriation for current expenses.

TABLE "G."

## CLASSIFIED STATEMENT OF EXPENDITURES FROM APPROPRIATION AND CHARITABLE INSTITUTIONS FOR THE

CLASSIFICATION.	HOSPITALS FOR INSANE.			Soldiers' Home at Minneapolis.
	Hospital at Fergus Falls	Hospital at St. Peter.	Hospital at Rochester.	
YEAR ENDING JULY 31 1887.				
1. Attendance.....		\$38,732.14	\$27,980.19	
2. Food.....		46,690.37	34,107.03	
3. Clothing and bedding.....		13,704.65	8,760.87	
4. Laundry supplies.....		1,636.72	1,049.74	
5. Fuel.....		21,618.21	17,800.17	
6. Light.....		1,587.19	640.44	
7. Medical supplies.....		965.46	675.79	
8. Freight and transportation.....		1,289.28	1,026.74	
9. Postage and telegraphing.....		345.34	227.63	
10. Books, stationery and printing.....		642.18	557.88	
11. Amusements and instruction.....		116.80	555.22	
12. Household supplies.....		2,355.02	1,751.50	
13. Furniture and upholstery.....		676.64	1,030.65	
14. Building, repairs, etc.....		7,532.37	4,096.37	
15. Tools and machinery.....		2,306.21	656.77	
16. Farm, garden, stock and grounds...		5,016.68	2,359.96	
17. Insurance.....				
18. Burial expenses.....		170.00	21.00	
19. Expenses not classified.....		946.93	439.07	
20. Industrial training expenses and good conduct fund.....				
Totals for the year 1886-7.....		\$146,332.19	\$103,737.02	
Deduct receipts from sales, rent and labor of inmates.....		4,261.13	126.27	
Net current expenditures for the year.....		\$142,071.06	\$103,610.75	
YEAR ENDING JULY 31, 1888.				
1. Attendance.....	a	\$42,917.31	a \$32,276.22	\$3,739.97
2. Food.....		51,241.63	37,963.77	2,974.09
3. Clothing and bedding.....		18,680.71	13,218.65	2,143.06
4. Laundry supplies.....		1,667.49	1,489.38	67.93
5. Fuel.....		23,269.57	18,713.49	739.95
6. Light.....		1,631.43	562.03	37.94
7. Medical supplies.....		647.69	816.21	323.32
8. Freight and transportation.....		1,652.12	1,323.94	512.65
9. Postage and telegraphing.....		294.95	197.79	129.06
10. Books, stationery and printing.....		868.04	591.65	254.10
11. Amusements and instruction.....		97.40	187.67	
12. Household supplies.....		2,525.96	2,490.66	1,052.10
13. Furniture and upholstery.....		2,486.15	1,688.59	940.79
14. Building, repairs, etc.....		11,213.56	9,423.98	821.72
15. Tools and machinery.....		2,581.04	1,306.87	29.26
16. Farm, garden, stock and grounds...		6,049.00	2,460.90	282.55
17. Insurance.....				
18. Burial expenses.....		130.00	31.00	62.50
19. Expenses not classified.....		666.26	563.07	1,207.72
20. Industrial training expenses and good conduct fund.....				
Totals for the year ending July 31, 1888.....		\$168,620.31	\$125,305.87	\$15,318.71
Deduct receipts from sales, rent and labor of inmates.....		4,824.45	343.01	
Net current expenditures for the year.....		\$163,795.86	\$124,962.86	\$15,318.71

(a) Including wages of employes for 13 months.



TABLE "G."

TIONS FOR CURRENT EXPENSES OF THE STATE CORRECTIONAL  
TWO YEARS ENDING JULY 31, 1888.

INSTITUTE FOR DEFECTIVES AT FARIBAULT.			School for Dependent Children at Owatonna.	CORRECTIONAL INSTITUTIONS.			TOTALS.
School for the Deaf.	School for the Blind.	School for the Feeble- Minded.		Prison at Stillwater.	Reform School at St. Paul.	Reforma- tory at St. Cloud.	
\$14,612.26	\$5,239.58	\$10,210.12	\$8,121.17	\$27,753.95	\$10,333.24		\$137,982.65
6,302.53	2,436.72	5,493.29	1,138.55	18,830.45	7,848.27		122,847.21
705.05	284.73	1,197.15	599.47	5,189.08	3,832.65		34,273.65
169.50	85.74	236.88	74.58	301.06	251.81		3,806.03
4,987.56	1,661.19	2,722.75	812.38	4,520.18	4,440.09		58,562.53
1,410.39	244.29	851.28	29.41	1,540.80	133.50		6,437.30
44.75	26.20	179.45	22.25	597.91	43.80		2,555.61
171.23	81.34	136.48	69.53	93.95	313.95		3,182.50
199.58	52.80	147.59	39.12	310.31	185.55		1,507.92
529.62	257.10	209.82	383.76	203.67	266.12		3,050.15
80.02	458.97	207.04	11.93	19.21	219.56		1,680.75
662.87	195.51	1,047.43	251.33	736.92	420.33		7,422.91
305.64	107.12	1,080.93	51.05	346.42	383.10		3,981.55
3,212.91	955.00	3,934.25	106.60	1,192.08	470.40		21,499.98
1,887.46	116.57	1,007.78	56.62	315.63	862.48		6,709.52
1,573.58	211.76	1,805.42	1,110.32		1,635.04		13,212.76
		11.40			60.00		71.40
				70.00			261.00
287.32	136.70	152.10	13.73	1,218.74	3.75		4,198.34
2,837.75	524.63	55.67		12,628.24	10,216.62		26,262.89
\$39,480.00	\$13,075.95	\$30,186.83	\$7,891.80	\$76,868.60	\$41,920.26		\$459,492.65
2,724.20	182.05	158.13	40.30	44,827.01	11,445.43		63,764.52
\$36,755.80	\$12,893.90	\$30,028.70	\$7,851.50	\$32,041.59	\$30,474.83		\$395,728.13
\$15,725.66	\$5,634.19	\$12,730.63	\$5,974.25	\$33,045.37	\$10,910.72		\$162,954.32
6,565.53	2,351.52	8,479.34	2,066.93	20,321.18	10,267.75		142,231.74
664.36	259.74	835.62	1,430.81	6,335.93	4,616.01		48,184.89
165.20	79.16	376.09	165.76	190.27	328.04		4,529.32
4,491.70	1,754.51	4,621.67	2,427.12	6,833.00	4,145.93		66,996.94
1,398.68	237.00	1,168.21	60.99	1,863.44	170.62		7,130.34
38.99	16.72	535.81	86.21	744.34	51.10		3,260.39
334.67	171.51	363.98	296.20	157.99	280.70		5,093.76
189.23	27.51	145.84	50.65	427.92	194.90		1,657.85
526.29	241.22	267.14	167.81	455.71	366.45		3,738.41
79.07	328.12	156.24	142.65		22.06		1,013.21
270.26	223.40	880.75	329.55	1,162.99	251.47		9,217.14
470.12	325.28	1,370.82	354.95	207.43	1,038.20		8,882.38
3,636.11	894.00	6,030.71	618.72	1,226.80	2,362.10		36,227.70
292.12	30.45	1,176.92	250.31	772.78	586.32		7,026.07
1,766.11	380.29	1,871.50	987.27		1,329.14		15,126.76
					200.00		200.00
516.35	195.91	382.61	1.00	1,836.74	26.25		328.75
3,883.31	389.73	155.86		13,228.94	9,458.81		5,369.66
\$41,013.76	\$13,540.26	\$41,555.74	\$15,421.18	\$88,873.88	\$46,636.57		\$556,286.28
3,012.29	544.05	307.54		46,672.82	6,679.62		62,383.78
\$38,001.47	\$12,996.21	\$41,248.20	\$15,421.18	\$42,201.06	\$39,956.95		\$493,902.50

TABLE "G"—CONTINUED.

## CLASSIFIED STATEMENT OF EXPENDITURES FROM APPROPRIATIONS AND CHARITABLE INSTITUTIONS FOR

CLASSIFICATION.	HOSPITALS FOR INSANE.			Soldiers' Home at Minneapolis.
	Hospital at Fergus Falls	Hospital at St. Peter.	Hospital at Rochester.	
TWO YEARS ENDING JULY 31, 1888.				
Total expenditures from current appropriations.....		\$314, 952.50	\$229, 042.89	\$15, 318.71
Deduct receipts from sales, rent and labor of inmates.....		9, 085.58	469 28	
Net current expenditures for two years.....		\$305, 866.92	\$228, 573.61	\$15, 318.71
EXPENDITURES FOR ALL PURPOSES.				
<i>During Two Years Ending July 31, 1888.</i>				
Special expenditures as per Table F.....	\$38, 717.59	\$50, 884.21	\$58, 723.36	\$10, 307.22
Current expenditures as per Table G.....		305, 866.92	228, 573.61	15, 318.71
Total expenditures for two years .....	\$38, 717.59	\$356, 751.13	\$287, 296.97	\$25, 625.93

TABLE "G"—CONTINUED.

TIONS FOR CURRENT EXPENSES OF THE STATE CORRECTIONAL  
THE TWO YEARS ENDING JULY 31, 1888.

INSTITUTE FOR DEFECTIVES AT FARIBAULT.			School for Dependent Children at Owatonna.	CORRECTIONAL INSTITUTIONS.			TOTALS.
School for the Deaf.	School for the Blind.	School for the Feeble- Minded.		Prison at Stillwater.	Reform School at St. Paul.	Reforma- tory at St. Cloud.	
\$80,493.76	\$26,616.21	\$71,742.57	\$23,312.98	\$165,742.48	\$88,556.83	.....	\$1,015,778.93
5,736.49	726.10	465.67	40.30	91,499.83	18,125.05	.....	126,148.30
\$74,757.27	\$25,890.11	\$71,276.90	\$23,272.68	\$74,242.65	\$70,431.78	.....	\$889,630.63
\$1,243.22	\$270.00	\$46,394.06	\$70,189.88	\$60,240.43	\$4,754.56	\$12,755.58	\$354,480.11
74,757.27	25,890.11	71,276.90	23,272.68	74,242.65	70,431.78	.....	889,630.63
\$76,000.49	\$26,160.11	\$117,670.96	\$93,462.56	\$134,483.08	\$75,186.34	\$12,755.58	\$1,244,110.74





TABLE "H."

EXPENSES OF THE STATE CORRECTIONAL AND CHARITABLE  
JULY 31, 1888. (Based on Table "G.")

INSTITUTE FOR DEFECTIVES AT FARIBAULT.			School for Dependent Children at Owatonna.	CORRECTIONAL INSTITUTIONS.		TOTALS.
School for the Deaf.	School for the Blind.	School for the Feeble- Minded.		Prison at Stillwater.	Reform School at St. Paul.	
\$125.44	\$166.87	\$97.80	\$117.34	\$69.75	\$50.93	\$57.29
131.26	165.23	80.99	89.70	77.48	46.11	58.81
54.15	77.60	52.63	42.80	47.47	38.68	50.63
54.82	68.96	53.95	31.04	47.65	43.22	51.30
6.06	9.07	11.46	22.54	13.04	18.88	14.11
5.55	7.62	5.32	21.48	14.85	19.43	17.39
42.86	52.90	26.08	30.54	11.36	21.88	24.29
37.50	51.46	29.41	36.44	16.02	17.45	24.14
12.09	7.78	8.15	1.11	3.87	.65	2.67
11.67	6.95	7.38	.91	4.38	.72	2.58
.47	.83	1.72	.84	*1.50	.22	1.06
.32	.49	3.41	1.29	1.75	.22	1.18
8.29	9.64	20.39	11.33	2.72	3.96	4.70
6.17	16.09	14.33	10.28	3.21	5.56	6.54
27.52	30.42	37.68	4.01	3.00	2.32	8.88
30.35	26.21	38.37	9.29	2.88	9.95	13.07
13.49	6.74	12.51	41.74	.....	8.06	5.00
14.74	11.15	11.93	14.82	.....	5.60	5.46
24.40	37.87	20.19	24.43	8.74	10.60	11.27
17.55	31.48	18.26	16.30	9.14	8.40	9.46
24.39	16.71	.53	.....	31.73	50.45	10.90
32.42	11.44	1.00	.....	31.02	39.62	9.77
\$339.16	\$416.43	\$289.14	\$296.68	\$193.18	\$206.63	\$190.80
342.35	397.08	264.35	231.55	208.38	196.28	200.70
23.40	5.80	1.51	1.51	112.66	56.43	26.52
25.14	15.96	1.95	.....	109.43	28.11	22.51
\$315.76	\$410.63	\$287.63	\$295.17	\$80.52	\$150.20	\$164.32
317.21	381.12	262.40	231.55	98.95	168.17	178.19
\$6.05	\$7.88	\$5.52	\$5.66	\$1.55	\$2.88	\$3.15
6.07	7.29	5.02	4.43	1.90	3.21	3.43
116.4	31.4	104.4	26.6	397.9	202.9	2,408.3
119.8	34.1	157.2	66.6	426.5	237.6	2,771.8
\$36,756.00	\$12,894.00	\$30,029.00	\$7,851.00	\$32,041.00	\$30,475.00	\$395,728.06
33,001.00	12,996.00	41,248.00	15,421.00	42,201.00	39,957.00	493,902.00
\$236.37	\$307.00	\$267.63	.....	.....	.....	.....
231.43	285.00	249.84	.....	.....	.....	.....
6.05	7.88	5.13	.....	.....	.....	.....
6.07	7.29	4.78	.....	.....	.....	.....
155.7	42.0	112.2	.....	.....	.....	.....
164.2	45.6	165.1	.....	.....	.....	.....

TABLE "I."

SUB-CLASSIFICATION OF ATTENDANCE, SHOWING THE NUMBER OF SERVICE IN THE CORRECTIONAL AND CHARITABLE INSTI-

	Av'ge No. of In- mates.	NUMBER OF DAYS OF SERVICE RENDERED, DURING THE YEAR BY								Totals.
		a.	b.	c.	d.	e.	f.	g.		
		Officers.	Teach- ers.	Custo- dians.	Domes- tics.	Eng's Dept.	Farm Empl's.	Misc'l		
		Days of Service.	Days of Ser- vice.	Days of Service.	Days of Service.	Days of Ser- vice.	Days of Service.	Days of Ser- vice.	Days of Service.	
St. Peter hospi- tal for insane. { 1886-7 { 1887-8	897.1 944.0	1,540 1,534	..... .....	22,175 26,162	8,690 10,375	3,002 3,242	3,611 4,151	1,715 1,689	40,733 47,153	
Rochester hos- pital for insane. { 1886-7 { 1887-8	631.6 751.3	1,460 1,534	58 12	16,927 19,875	6,398 8,340	1,971 2,192	2,488 2,828	1,213 615	30,515 35,396	
State soldiers home. { 1886-7 { 1887-8	..... 33.8	..... 576	..... .....	..... 310	..... 1,065	..... .....	..... 150	..... 46	..... 2,147	
School for the deaf. { 1886-7 { 1887-8	116.4 119.8	960 975	2,156 2,467	1,990 2,195	4,685 4,500	730 882	962 1,098	108 340	11,591 12,457	
School for the blind. { 1886-7 { 1887-8	31.4 34.1	838 818	1,324 1,555	258 237	2,631 2,633	273 290	462 464	3 8	5,789 6,005	
School for fee- ble-minded. { 1886-7 { 1887-8	104.4 157.2	1,290 1,347	1,244 1,782	3,186 4,053	4,144 4,800	492 701	659 792	737 742	11,752 14,217	
School for depen- dent children. { 1886-7 { 1887-8	26.6 66.6	583 1,111	135 366	516 1,011	1,565 2,714	..... 456	567 869	..... .....	3,366 6,527	
State reform school. { 1886-7 { 1887-8	202.9 237.6	1,433 1,549	908 1,260	1,682 1,630	2,470 2,900	365 366	919 531	56 26	7,833 8,262	
State prison..... { 1886-7 { 1887-8	397.9 426.5	1,654 1,789	..... .....	10,441 11,307	365 366	..... 152	20 39	629 513	13,109 14,166	
Totals ..... { 1886-7 { 1887-8	2,408.3 2,777.1	9,758 11,233	5,825 7,442	57,175 66,780	30,948 37,693	6,833 8,281	9,688 10,922	4,461 3,979	124,688 146,830	

TABLE "I."

OF DAYS SERVICE AND THE AMOUNT PAID FOR EACH CLASS  
TUTIONS DURING THE TWO YEARS ENDING JULY, 31, 1888.

AMOUNT OF SALARIES AND WAGES PAID DURING THE YEAR TO							
a. Officers.	b. Teachers.	c. Custodians.	d. Domestics.	e. Engineer's Department	f. Farm Employees.	g. Miscellan- eous.	Totals.
Amount Paid.	Amount. Paid.	Amount. Paid.	Amount Paid.	Amount Paid.	Amount Paid.	Amount Paid.	Amount Paid.
\$7,400.00	.....	\$15,118.45	\$6,333.54	\$3,556.41	\$3,210.06	\$3,113.68	\$ 38,732.14
7,450.00	.....	17,775.15	7,505.18	3,980.51	3,652.00	2,554.47	42,917.31
6,050.00	\$145.00	10,599.68	4,510.08	2,395.08	2,342.75	1,937.60	27,980.19
6,550.00	30.00	12,895.87	5,935.72	2,813.00	2,732.80	1,258.83	32,276.22
2,147.42	.....	307.33	945.21	.....	155.85	184.16	3,739.97
3,846.06	4,733.26	1,598.19	2,253.90	1,143.00	895.00	142.85	14,612.26
3,687.29	5,783.90	1,549.78	1,960.54	1,264.86	1,099.15	380.14	15,725.66
2,199.17	1,359.66	126.50	1,070.80	180.00	293.50	9.95	5,239.58
2,100.00	1,757.46	117.50	1,102.05	217.50	324.00	15.68	5,634.19
3,725.96	1,332.50	1,957.83	1,719.79	375.84	644.80	453.40	10,210.12
4,205.92	1,741.00	2,490.15	2,150.18	919.23	597.75	626.40	12,730.63
1,199.44	112.39	391.65	835.64	.....	582.05	.....	3,121.17
2,197.03	360.18	837.14	1,190.59	484.57	904.74	.....	5,974.25
3,783.92	822.47	2,007.86	1,952.66	750.00	814.33	202.00	10,333.24
4,142.92	1,261.92	1,740.00	2,373.88	600.00	653.00	136.00	10,910.72
7,276.52	.....	17,592.75	1,050.00	.....	30.76	1,803.92	27,753.95
8,426.04	.....	21,632.00	1,200.00	257.37	82.91	1,447.05	33,045.37
\$85,481.07	\$8,505.28	\$49,392.91	\$19,726.41	\$8,400.33	\$8,813.25	\$7,663.40	\$137,982.65
40,906.62	10,937.46	59,344.92	24,363.35	10,537.04	10,262.20	6,602.73	162,954.32

TABLE "J."

PER CAPITA STATEMENT OF THE SUB-CLASSIFICATION OF ATTENDED PER INMATE AND THE AVERAGE COST PER INMATE CHARITABLE INSTITUTIONS DURING THE TWO YEARS ENDING

	Average No. of In- mates.	DAYS' SERVICE RENDERED DURING THE YEAR PER INMATE BY							
		a. Officers.	b Teach- ers.	c Custo- dians.	d Domes- tics.	e Engrs Dept.	f Farm Empl's	g Misc'l	Totals.
		Days per In- mate.	Days per In- mate.	Days per In- mate.	Days per In- mate.	Days per In- mate.	Days per In- mate.	Days per In- mate.	Days per In- mate.
St. Peter hospi- tal for insane. { 1886-7 { 1887-8	897.1 944.9	1.7 1.6	..... .....	24.7 27.7	9.7 11.	3.4 3.5	4 4.4	1.9 1.8	45.4 50.
Rochester hospi- tal for insane. { 1886-7 { 1887-8	631.6 751.3	2.3 2.	0.1 .....	26.8 26.5	10.1 11.1	3.1 2.9	4. 3.8	1.9 .8	48.3 47.1
State soldiers' home. { 1886-7 { 1887-8	..... 33.8	..... 17.	..... .....	9.2 .....	31.5 .....	..... .....	4.4 .....	1.4 .....	63.5 .....
School for the deaf. { 1886-7 { 1887-8	116.4 119.8	8.3 8.1	18.5 20.6	17.1 18.3	40.2 37.5	6.3 7.4	8.3 9.2	.9 2.9	99.6 104.
School for the blind. { 1886-7 { 1887-8	31.4 34.1	26.7 24.	42.2 45.6	8.2 7.	83.8 77.2	8.7 8.5	14.7 13.6	.1 .2	184.4 176.1
School for the feeble-minded. { 1886-7 { 1887-8	104.4 157.2	12.4 8.6	11.9 11.3	30.5 25.8	39.7 30.5	4.7 4.5	6.3 5.	7.1 4.8	112.6 90.5
Scho'l for depen- dent children. { 1886-7 { 1887-8	26.6 66.6	21.9 16.7	5.1 5.5	19.4 15.2	58.8 40.8	..... 6.8	21.3 13.	..... .....	126.5 98.
State reform school. { 1886-7 { 1887-8	202.9 237.6	7. 6.5	4.5 5.3	8.3 6.9	12.2 12.2	1.8 1.5	4.5 2.2	.3 .1	38.6 34.7
State rison..... { 1886-7 { 1887-8	397.9 426.5	4.2 4.2	..... .....	26.2 26.5	.9 .9	..... .4	.1 .1	1.6 1.	33. 33.1
Totals ..... { 1886-7 { 1887-8	2408.3 2771.8	4.1 4.	2.4 2.8	23.7 24.1	12.9 13.6	2.8 3.	4. 3.9	1.9 1.4	51.8 52.8

THE SAME BASED ON AVERAGE NUMBER OF INMATES

School for the deaf. { 1886-7 { 1887-8	155.7 164.2	6.2 5.9	13.8 15.	12.8 13.4	30.1 27.4	4.7 5.4	6.2 6.7	.7 2.1	74.5 75.9
School for the blind. { 1886-7 { 1887-8	42. 45.6	20. 18.	31.5 34.1	6.1 5.2	62.7 57.7	6.5 6.3	11. 10.2	.1 .2	137.8 131.7
School for feeble minded. { 1886-7 { 1887-8	112.2 165.1	11.5 8.2	11.1 10.8	28.4 24.6	36.9 29.	4.4 4.2	5.9 4.8	6.5 4.5	104.7 86.1



TABLE "J."

TENDANCE SHOWING THE AVERAGE NUMBER OF DAYS' SERVICE FOR EACH CLASS OF SERVICE IN THE STATE CORRECTIONAL AND JULY 31, 1888.

COST OF SERVICE DURING THE YEAR PER INMATE FOR —							
a Officers.	b Teachers.	c Custodians.	d Domestics.	e Engineer's Departm't.	f Farm Em- ployes.	g Miscel- laneous.	Totals.
Cost per Inmate.	Cost per Inmate.	Cost per Inmate.	Cost per Inmate.	Cost per Inmate.	Cost per Inmate.	Cost per Inmate.	Cost per Inmate.
\$8.25	.....	\$16.85	\$7.06	3.96	\$3.58	\$3.47	\$43.17
7.89	.....	18.81	7.95	4.21	3.87	2.70	45.43
9.58	\$ .23	16.78	7.14	3.79	3.71	3.07	44.30
8.72	.04	17.16	7.90	3.79	3.72	1.63	42.96
63.53	.....	9.10	27.96	.....	4.61	5.45	110.65
33.04	40.67	13.73	19.36	9.82	7.69	1.23	125.54
30.78	43.28	12.93	16.37	10.56	9.17	3.17	131.26
70.04	43.30	4.03	34.10	5.74	9.34	.32	166.87
61.58	51.54	3.45	32.32	6.38	9.50	.46	165.23
35.69	12.76	18.75	16.47	3.60	6.18	4.35	97.80
26.76	11.07	15.84	13.68	5.85	3.80	3.99	80.99
45.10	4.23	14.72	31.41	.....	21.88	.....	117.84
33.00	5.40	12.57	17.88	7.27	13.58	.....	89.70
18.65	4.05	9.90	9.62	3.70	4.01	1.00	50.93
17.44	5.32	7.32	10.00	2.52	2.75	.57	45.92
18.29	.....	44.21	2.64	.....	.08	4.53	69.75
19.75	.....	50.72	2.81	.60	.20	3.40	77.48
\$14.73	\$3.53	\$20.51	\$8.19	\$3.49	\$3.66	\$3.18	\$57.29
14.76	3.95	21.41	8.79	3.81	3.71	2.38	53.81

DURING TERM TIME IN INSTITUTIONS HAVING A VACATION.

\$24.70	\$30.40	\$10.27	\$14.47	\$7.34	\$5.75	\$ .92	\$93.85
22.46	35.22	9.44	11.94	7.70	6.70	2.31	95.77
52.35	32.38	3.01	25.50	4.29	6.99	.24	124.76
46.05	38.54	2.58	24.17	4.77	7.10	.35	123.56
33.21	11.88	17.45	15.32	3.35	5.74	4.04	90.99
25.47	10.54	15.08	13.02	5.57	3.62	3.80	77.10

TABLE "K."

STATEMENT OF THE SUB-CLASSIFICATION OF ATTENDANCE SHOWING THE AVERAGE PRICE PAID PER DAY FOR SALARIES AND WAGES TO MALE AND FEMALE OFFICERS AND EMPLOYES OF STATE CORRECTIONAL AND CHARITABLE INSTITUTIONS DURING THE YEAR ENDING JULY 31, 1887. (See table "L.")

KIND OF SERVICE.	ST. PETER HOSPITAL FOR INSANE.			ROCHESTER HOSPITAL FOR INSANE.			SCHOOL FOR THE DEAF.			SCHOOL FOR THE BLIND.			SCHOOL FOR THE	
	Days Service.	Rate per day. a.	Amount.	Days Ser-vice.	Rate per day. a.	Amount.	Days Ser-vice.	Rate per day. a.	Amount.	Days Service.	Rate per day. a.	Amount.	Days Service.	Rate per day. a.
Officers—														
Male.....	1,540	\$4.80	\$7,400.00	1,460	\$4.15	\$6,050.00	595	\$5.63	\$3,346.02	474	\$3.88	\$1,840.00	925	\$3.60
Female.....							365	1.37	500.04	364	0.99	359.17	365	1.10
Teachers—														
Male.....				58	2.50	145.00	1,064	3.00	3,483.34	585	1.10	644.46	304	0.82
Female.....							1,092	0.85	1,249.92	739	0.97	715.00	940	1.14
Custodians—														
Male.....	13,363	0.83	11,085.79	8,171	0.81	6,618.32	730	0.98	715.00	258	0.49	126.50	1,313	0.77
Female.....	8,812	0.46	4,032.66	8,756	0.45	3,981.36	1,260	0.70	883.19				1,873	0.51
Domestics—														
Male.....	3,241	1.25	4,041.16	2,160	1.19	2,564.82								
Female.....	5,449	0.42	2,292.38	4,238	0.46	1,945.26	4,685	0.48	2,253.90	2,631	0.41	1,070.80	4,144	0.41
Engineer's Department—														
Male.....	3,002	1.18	3,556.41	1,971	1.21	2,395.08	730	1.57	1,143.00	273	0.66	180.00	492	0.77
Farm employes—														
Male.....	3,611	0.89	3,210.06	2,488	0.94	2,342.75	962	0.93	895.00	492	0.64	293.50	659	0.98
Miscellaneous—														
Male.....	1,715	1.81	3,113.68	1,213	1.60	1,937.60	108	1.32	142.85	3	3.32	9.95	7	3.34
Female.....													730	0.59
Totals { Male.....	26,472	\$1.23	\$32,407.10	17,521	\$1.26	\$22,053.57	4,189	\$2.32	\$9,725.21	1,797	\$1.65	\$2,968.11	3,700	\$1.53
Female.....	14,261	0.44	6,325.04	12,994	0.46	5,926.62	7,402	0.66	4,887.05	3,992	0.57	2,271.47	8,052	0.57
Totals for year 1886-87.....	40,733	\$0.95	\$38,732.14	30,515	\$0.92	\$27,980.19	11,591	\$1.26	\$14,612.26	5,789	\$0.90	\$5,239.58	11,752	\$0.87
Totals for year 1887-88.....	47,153	0.91	42,917.31	35,896	0.91	32,276.22	12,457	1.26	15,725.66	6,005	0.93	5,634.19	14,217	0.90

TABLE "K" — CONCLUDED.

KIND OF SERVICE.	SCHOOL FOR DEPENDENT CHILDREN.			REFORM SCHOOL.			STATE PRISON.			TOTALS.		
	FEBLE-MINDED.	Days Service.	Rate per day, a.	Amount.	Days Service.	Rate per day, a.	Amount.	Days Service.	Rate per day, a.	Amount.	Days Service.	Rate per day, a.
Officers—												
Male.....	\$3,325.00	355	\$2.96	\$1,048.92	1,068	\$3.17	\$3,883.96	1,289b	\$5.33	\$6,866.52	7,706	\$4.45
Female.....	399.96	228	0.66	150.52	365	1.10	399.96	365	1.13	410.00	2,052	1.08
Teachers—												
Male.....	262.50											
Female.....	1,070.00	135	0.83	112.39	908	0.91	822.47				2,011	2.25
Custodians—											3,814	1.04
Male.....												
Female.....	1,007.99	516	0.76	391.65	1,268	1.32	1,675.00	10,441	1.69	17,592.75	35,286	1.10
Domestics—	949.84				414	0.80	332.86				21,889	0.49
Male.....												
Female.....		310	1.07	330.65	316	0.78	249.68	365	2.89	1,050.00	6,392	1.29
Engineers' Department—	1,719.79	1,255	0.40	504.99	2,154	0.79	1,702.98				24,556	0.47
Male.....												
Female.....	375.84				365	2.05	750.00				6,833	1.23
Farm employees—												
Male.....	644.80	567	1.03	582.05	919	0.89	814.33	20	1.32	30.76	9,688	0.91
Miscellaneous—												
Male.....	23.40				56	3.60	202.00	629	2.87	1,803.92	3,731	1.94
Female.....	430.00										730	0.59
Totals { Male.....	\$5,640.55	1,232	\$1.59	\$1,961.62	3,992	\$1.77	\$7,074.97	12,744	\$2.15	\$27,343.95	71,647	\$1.52
Female.....	4,569.59	2,134	0.54	1,159.55	3,841	0.85	3,258.27	365	1.13	410.00	53,041	0.54
Totals for year 1886-87	\$10,210.12	3,366	\$0.93	\$3,121.17	7,833	\$1.32	\$10,333.24	13,109	\$2.12	\$27,753.95	124,688	\$1.17
Totals for year 1887-88	12,730.63	6,527	0.92	5,974.58	8,262	1.32	10,910.72	14,166	2.33	33,045.37	146,330	1.11
a. Per day. Per mo.	Per day. Per mo.	Per day. Per mo.	Per day. Per mo.	Per day. Per mo.	Per day. Per mo.	Per day. Per mo.	Per day. Per mo.	Per day. Per mo.	Per day. Per mo.	Per day. Per mo.	Per day. Per mo.	Per day. Per mo.
\$0 33 = \$10 00	\$0 39 = \$12 00	\$0 45 = \$14 00	\$0 49 = \$15 00	\$0 53 = \$16 00								
0 59 = 18 00	0 66 = 20 00	0 73 = 22 00	0 82 = 25 00	0 99 = 30 00								
1 15 = 35 00	1 32 = 40 00	1 48 = 45 00	1 65 = 50 00	1 97 = 60 00								
2 20 = 67 00	2 47 = 75 00	2 73 = 83 00	3 29 = 100 00	4 11 = 125 00								
4 37 = 433 00	4 93 = 150 00	5 49 = 167 00	6 84 = 208 00									

b.— Without board.

TABLE "L."

CONSOLIDATED PAY ROLL OF MINNESOTA CORRECTIONAL AND CHARITABLE INSTITUTIONS  
FOR THE FISCAL YEAR ENDING JULY 31, 1887.

KIND OF SERVICE.	ST. PETER HOSPITAL FOR INSANE.			ROCHESTER HOSPITAL FOR INSANE.			SCHOOL FOR THE DEAF.			SCHOOL FOR THE BLIND.			SCHOOL FOR THE		
	Num- ber of Days.	Rate per Day.	Amount.	Num- ber of Days.	Rate per Day.	Amount.	Num- ber of Days.	Rate per Day.	Amount.	Num- ber of Days.	Rate per Day.	Amount.	Num- ber of Days.	Rate per Day.	
<b>a. OFFICERS.</b>															
Superintendent or warden.....	365	\$6.85	\$2,500.00	365	\$6.85	\$2,500.00	365	\$5.48	\$2,000.04	365	\$3.29	\$1,200.00	365	\$4.11	
Assistant physician.....	365	4.38	1,600.00	365	3.29	1,200.00									
Second assistant physician.....	365	2.47	900.00	365	2.19	800.00									
Deputy warden.....															
Assistant superintendent.....	365	5.48	2,000.00	365	4.25	1,550.00	146	2.52	365	73	6.30	460.00	146	1.82	
Steward or chief clerk.....	20	5.00	100.00				24	5.00	120.00	12	5.00	60.00	24	5.00	
Secretary.....	60	5.00	300.00				8	5.00	40.00	4	5.00	20.00	8	5.00	
Treasurer.....							52	5.00	265.98	20	5.00	100.00	17	5.00	
Physician (non-resident).....							365	1.37	500.04	364	0.99	359.17	365	1.10	
Matron.....															
Total "a".....	1,540		\$7,400.00	1,460		\$6,050.00	960		\$3,846.06	838		\$2,199.17	1,290		
<b>b. TEACHERS.</b>															
Teachers, male.....				58	\$2.50	\$145.00	1,064	\$3.00	\$3,192.00	312	\$1.87	\$584.66	304	\$0.82	
Tutors, male.....															
Teachers, female.....							1,092	0.85	\$928.40	468	1.32	\$615.00	940	1.14	
Tutors, female.....															
Total "b".....				58		\$145.00	2,156		\$4,733.26	1,324		\$1,359.66	1,244		





TABLE "L"—CONTINUED.

CONSOLIDATED PAY ROLL OF MINNESOTA CORRECTIONAL AND CHARITABLE INSTITUTIONS  
FOR THE FISCAL YEAR ENDING JULY 31, 1887.

KIND OF SERVICE.	ST. PETER HOSPITAL FOR INSANE.			ROCHESTER HOSPITAL FOR INSANE.			SCHOOL FOR THE DEAF.			SCHOOL FOR THE BLIND.			SCHOOL FOR THE		
	Num- ber of Days.	Rate per Day.	Amount.	Num- ber of Days.	Rate per Day.	Amount.	Num- ber of Days.	Rate per Day.	Amount.	Num- ber of Days.	Rate per Day.	Amount.	Num- ber of Days.	Rate per Day.	
<i>c. CUSTODIANS.</i>															
Assistant keeper.....															
Supervisors.....	1,095	<b>\$1.10</b>	\$1,200.00	372	<b>\$1.15</b>	\$428.17									
Attendants (male).....	11,517	<b>0.82</b>	9,273.69	6,642	<b>0.78</b>	5,183.99	365	<b>\$0.82</b>	\$295.00				948	<b>\$0.77</b>	
Guards.....															
Hospital steward.....															
Ushers.....				426	<b>0.86</b>	368.00									
Watchmen.....	751	<b>0.82</b>	612.10	731	<b>0.84</b>	638.16	365	<b>1.15</b>	420.00				365	<b>0.79</b>	
Assistant matrons.....							350	<b>1.10</b>	383.30				384	<b>0.87</b>	
Supervisors, female.....	365	<b>0.66</b>	240.00	372	<b>0.66</b>	244.66									
Attendants, female.....	8,082	<b>0.45</b>	3,620.66	8,019	<b>0.45</b>	3,556.70	273	<b>0.53</b>	155.00	200	<b>\$0.49</b>	\$98.50	1,004	<b>0.42</b>	
Nurses, female.....							637	<b>0.54</b>	344.89	58	<b>0.46</b>	28.00		<b>0.38</b>	
Ushers, female.....															
Watchwomen.....	365	<b>0.47</b>	172.00	365	<b>0.49</b>	180.00							150	<b>0.39</b>	
Total "c".....	22,175		\$15,118.45	16,927		\$10,599.68	1,990		\$1,598.19	258		\$126.50	3,186		

TABLE "L"—CONTINUED.  
 CONSOLIDATED PAY ROLL OF MINNESOTA CORRECTIONAL AND CHARITABLE INSTITUTIONS  
 FOR THE FISCAL YEAR ENDING JULY 31, 1887.

KIND OF SERVICE.	SCHOOL FOR DEPENDENT CHILDREN.			REFORM SCHOOL.			STATE PRISON.			TOTALS.		
	Num- ber of Days.	Rate per Day.	Amount.	Num- ber of Days.	Rate per Day.	Amount.	Num- ber of Days.	Rate per Day.	Amount.	Num- ber of Days.	Rate per Day.	Amount.
<i>c. CUSTODIANS.</i>												
Assistant keeper.....							365	\$2.48	905.00	365	\$2.48	\$905.00
Supervisors .....								1.11		1,467	1.11	1,628.17
Attendants (male).....			\$721.99					0.80		13,472	0.80	\$10,777.60
Guards.....				903	\$1.52	\$1,375.00	9,711	1.66	\$16,087.75	10,614	1.65	\$17,402.75
Hospital steward.....							365	1.65	600.00	365	1.65	600.00
Usher.....										426	0.86	368.00
Watchmen.....			286.00							2,577	0.87	2,256.26
Assistant matrons.....			335.96							1,596	0.87	1,395.13
Supervisors, female.....				365	0.82	300.00				1,737	0.66	1,154.66
Attendants, female.....			423.83							17,578	0.45	7,854.69
Nurses, female.....			130.05							1,098	0.50	551.58
Ushers, female.....				49	0.66	32.86						
Watchwomen .....			60.00							880	0.47	412.00
Total "c".....	516		\$1,957.83	1,682		\$2,007.86	10,441		\$17,592.75	57,175		\$49,392.91

**TABLE "L"—CONTINUED.**  
**CONSOLIDATED PAY ROLL OF MINNESOTA CORRECTIONAL AND CHARITABLE INSTITUTIONS**  
**FOR THE FISCAL YEAR ENDING JULY 31, 1887.**

KIND OF SERVICE.	ST. PETER HOSPITAL FOR INSANE.			ROCHESTER HOSPITAL FOR INSANE.			SCHOOL FOR THE DEAF.			SCHOOL FOR THE BLIND.			SCHOOL FOR THE		
	Num- ber of Days.	Rate per Day.	Amount.	Num- ber of Days.	Rate per Day.	Amount.	Num- ber of Days.	Rate per Day.	Amount.	Num- ber of Days.	Rate per Day.	Amount.	Num- ber of Days.	Rate per Day.	Amount.
<i>d. DOMESTICS.</i>															
Bakers, male.....	365	\$2.63	\$960.00	365	\$1.99	\$720.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
Assistant bakers, male.....	365	0.82	300.00	365	0.99	360.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cooks, male.....	730	1.65	1,200.00	365	1.36	493.99	.....	.....	.....	.....	.....	.....	.....	.....	.....
Assistant cooks, male.....	1,416	0.93	1,281.16	365	0.98	355.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
Janitors.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Shoemakers.....	365	.....	.....	365	0.99	360.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tailors.....	365	0.82	300.00	335	0.82	275.83	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bakers, female.....	365	.....	.....	.....	.....	.....	288	\$0.59	\$171.00	.....	.....	.....	439	\$0.47	.....
Cooks, female.....	365	0.59	216.00	366	0.53	192.53	211	0.66	207.33	339	\$0.49	\$166.45	357	0.49	.....
Assistant cooks, females.....	938	0.39	367.90	998	0.43	425.19	709	0.37	263.20	237	0.33	78.30	.....	.....	.....
Chambermaids.....	.....	.....	.....	334	0.44	147.20	1,242	0.36	449.66	971	0.37	356.40	697	0.39	.....
Housemaids.....	100	0.37	37.58	.....	.....	.....	365	0.66	239.00	326	0.56	183.15	250	0.53	.....
Laundresses.....	355	0.53	187.20	344	0.43	118.39	675	0.40	271.28	.....	.....	.....	898	0.36	.....
Assistant laundresses.....	2,301	0.40	933.94	1,443	0.43	618.99	.....	.....	.....	.....	.....	.....	135	0.68	.....
Scrubbers.....	874	0.44	381.46	367	0.59	217.07	282	1.10	309.97	9	0.39	46.75	427	0.35	.....
Seamstress or sewing teacher	516	0.33	168.30	386	0.43	163.73	913	0.37	342.46	663	0.36	239.73	911	0.38	.....
Waitresses.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total "d".....	8,690	.....	\$6,333.54	6,398	.....	\$4,510.08	4,085	.....	\$2,253.90	2,631	.....	\$1,070.80	4,144	.....	.....
<i>e. ENGINEER'S DEPARTMENT.</i>															
Engineer.....	365	\$2.63	\$960.00	365	\$2.40	\$870.00	365	\$2.45	\$890.00	.....	.....	.....	.....	.....	.....
Assistant Engineer.....	365	1.65	600.00	365	1.15	420.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
Firemen.....	1,545	0.82	1,265.80	893	0.85	764.83	365	0.69	253.00	273	\$0.66	\$180.00	492	\$0.77	.....
Gasmakers.....	365	0.89	324.00	348	0.99	341.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pumpmen.....	362	1.15	406.61	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total "e".....	3,002	.....	\$3,556.41	1,971	.....	\$2,395.08	730	.....	\$1,143.00	273	.....	\$180.00	492	.....	.....



TABLE "L"—CONTINUED.  
CONSOLIDATED PAY ROLL OF MINNESOTA CORRECTIONAL AND CHARITABLE INSTITUTIONS.  
FOR THE FISCAL YEAR ENDING JULY 31, 1887.

KIND OF SERVICE.	SCHOOL FOR DEPENDENT CHILDREN.			REFORM SCHOOL.			STATE PRISON.			TOTALS.	
	FEELP-MINDED.	Num-ber of Days.	Rate per Day.	Amount.	Num-ber of Days.	Rate per Day.	Amount.	Num-ber of Days.	Rate per Day.	Amount.	Rate per Day.
<i>d. DOMESTICS.</i>											
Bakers, male.....								730	\$2.30	\$1,680.00	
Assistant bakers, male.....								730	0.90	660.00	
Cooks, male.....								1,460	1.89	2,743.99	
Assistant cooks, male.....								1,781	0.93	1,656.16	
Janitors.....		310	\$1.06	\$329.65				310	1.06	330.65	
Shoemakers.....					316	\$0.79	\$249.68		0.74	609.68	
Tailors.....								700	0.82	57.83	
Bakers, female.....					365	0.82	300.00		0.68	676.42	
Cooks, female.....		233	0.39	91.73	676	0.82	553.92		0.43	1,893.42	
Assistant cooks, female.....					394	0.66	258.88		0.38	1,229.92	
Chambermaids.....								3,244	0.34	1,134.38	
Housesmaids.....		290	0.33	96.80				390	0.34	1,327.39	
Laundresses.....		252	0.45	114.56	354	0.82	290.83		0.59	1,827.39	
Assistant laundresses.....		95	0.35	33.65				5,412	0.40	2,183.34	
Scrubbers.....								2,535	0.68	1,722.00	
Seamstress or sewing teach r.		154	0.54	82.23	365	0.82	300.00		0.58	1,484.64	
Waitresses.....		231	0.37	86.02				3,650	0.57	1,365.23	
Total "d".....		1,565		\$835.64	2,470		\$1,952.66	365		\$19,726.41	
<i>e. ENGINEER'S DEPARTMENT.</i>											
Engineer.....										\$3,470.00	
Assistant engineer.....					315	\$2.05	\$750.00		1.38	1,020.00	
Firemen.....								3,568	0.80	2,838.72	
Gasmakers.....								713	0.94	665.00	
Pumpmen.....								362	1.13	406.61	
Total "e".....					365		\$750.00			\$8,400.33	

TABLE "L"—CONTINUED.

CONSOLIDATED PAY ROLL OF MINNESOTA CORRECTIONAL AND CHARITABLE INSTITUTIONS  
FOR THE FISCAL YEAR ENDING JULY 31, 1887.

KIND OF SERVICE.	ST. PETER HOSPITAL FOR INSANE.			ROCHESTER HOSPITAL FOR INSANE.			SCHOOL FOR THE DEAF.			SCHOOL FOR THE BLIND.			SCHOOL FOR THE	
	Num- ber of Days.	Rate per Day.	Amount.	Num- ber of Days.	Rate per Day.	Amount.	Num- ber of Days.	Rate per Day.	Amount.	Num- ber of Days.	Rate per Day.	Amount.	Num- ber of Days.	Rate per Day.
<i>f. FARM EMPLOYES.</i>														
Farmers.....	365	<b>\$1.65</b>	\$600.00	365	<b>\$1.32</b>	\$480.00	365	<b>\$0.66</b>	\$240.00				365	<b>\$0.82</b>
Assistant farmers.....														
Gardeners.....	390	<b>1.03</b>	400.00	365	<b>0.99</b>	360.00	62	<b>2.63</b>	<i>a</i> 160.00					
Laborers.....	1,791	<b>0.80</b>	1,445.06	98	<b>0.98</b>	95.75	170	<b>1.32</b>	<i>a</i> 255.00				189	<b>1.32</b>
Teamsters, choremen, etc	1,065	<b>0.73</b>	765.00	1,660	<b>0.84</b>	1,407.00	365	<b>0.66</b>	240.00				105	<b>0.59</b>
Total " <i>f</i> ".....	3,611		\$3,210.06	2,488		\$2,342.75	962		\$895.00			\$293.50	659	
<i>g. MISCELLANEOUS.</i>														
Inspectors (prison).....														
Chaplains.....	48	<b>\$5.00</b>	<i>a</i> \$240.00	50	<b>\$5.00</b>	<i>a</i> \$250.00	3	<b>\$4.63</b>	<i>a</i> \$13.90					
Civil engineers.....													2	<b>\$3.47</b>
Clerks.....	573	<b>1.75</b>	<i>a</i> 996.31	365	<b>1.65</b>	600.00	102	<b>1.08</b>	111.10			<i>a</i> \$6.95	4	<b>\$4.72</b>
Storekeepers, male.....														
Boiler inspectors.....	1		<i>a</i> 16.00											
Barbers.....							1		<i>a</i> 14.00					
Butchers.....	365	<b>1.65</b>	600.00				1		<i>a</i> 1.85					
Butcher's assistant.....	367	<b>0.99</b>	363.75										3	<b>1.50</b>
Carpenters.....	152	<b>2.31</b>	<i>a</i> 341.62	737	<b>1.39</b>	1,027.60								
Masons.....	133	<b>2.75</b>	<i>a</i> 366.00	61	<b>0.99</b>	60.00								
Painters.....	76	<b>2.50</b>	<i>a</i> 190.00											
Veterinary surgeons.....							1		<i>a</i> 2.00			<i>a</i> \$3.00		
Clerks, female.....													365	<b>0.66</b>
Storekeepers, female.....													365	<b>0.53</b>
Total " <i>g</i> ".....	1,715		\$3,113.68	1,213		\$1,937.60	108		\$142.85			\$9.95	737	

TABLE "L"—CONCLUDED.  
CONSOLIDATED PAY ROLL OF MINNESOTA CORRECTIONAL AND CHARITABLE INSTITUTIONS  
FOR THE FISCAL YEAR ENDING JULY 31, 1887.

KIND OF SERVICE.	SCHOOL FOR DEPENDENT CHILDREN.			REFORM SCHOOL.			STATE PRISON.			TOTALS.		
	Num-ber of Days.	Rate per Day.	Amount.	Num-ber of Days.	Rate per Day.	Amount.	Num-ber of Days.	Rate per Day.	Amount.	Num-ber of Days.	Rate per Day.	Amount
<i>f.</i> FARM EMPLOYES.												
Farmers.....	122	\$1.32	\$160.00	365	\$1.37	\$500.00				1,947	\$1.17	\$2,280.00
Assistant farmers.....	121	0.73	87.61							121	0.73	87.61
Gardeners.....										817	0.88	920.00
Labourers.....	214	1.26	268.31				20	\$1.32	\$30.76	2,579	0.95	2,445.38
Teamsters, choremen, etc	110	0.59	66.13	554	0.57	314.33				4,224	0.74	3,080.26
Total " <i>f</i> ".....	567		\$582.05	919		\$814.33	20		\$30.76	9,688		8,813.25
<i>g.</i> MISCELLANEOUS												
Inspectors (prison).....							78	\$5.00	\$391.92	78	\$5.00	\$391.92
Chaplains.....				39	\$3.00	\$117.00	180	4.00	720.00	317	4.19	1,327.00
Civil engineers.....				17	5.00	85.00				26	4.80	1,224.75
Clerks.....							6	2.00	12.00	1,046	1.64	1,719.41
Storekeepers, male.....							365	1.87	680.00	365	1.87	680.00
Boiler inspectors.....										2		30.00
Barbers.....										1		1.85
Butchers.....										368	1.65	604.50
Butcher's assistant.....										367	0.99	363.75
Carpenters.....										889	1.55	1,369.22
Masons.....										194	2.17	426.00
Painters.....										76	2.15	190.00
Veterinary surgeons.....										2		5.00
Clerks, female.....										365	0.66	240.00
Storekeepers, female.....										465	0.53	190.00
Total " <i>g</i> ".....			\$453.40	56		\$202.00	629		\$1,803.92	4,461		\$7,663.40

*a.* Without board. *b.* 273 days without board. *c.* 39 days without board. *d.* 87 days without board. *e.* One yard officer acted also as a teacher. *f.* See note at the foot of table "K."

TABLE "M."

SUB-CLASSIFICATION OF FOOD SHOWING THE COST OF FOOD IN THE STATE CORRECTIONAL AND CHARITABLE INSTITUTIONS FOR THE TWO FISCAL YEARS ENDING JULY 31, 1887, AND JULY 31, 1888.

	Year.	St. Peter Hos- pital for In- sane.	Rochester Hos- pital for In- sane.	School for the Deaf.	School for the Blind.	School for the Feeble-mind- ed.	School for De- pendent Chil- dren.	Reform School.	State Prison.	Soldiers Home.	Totals.
Breadstuffs .....	{ 1886-7 1887-8	\$4,968 6,162	\$3,316 4,906	\$782 872	\$415 467	\$717 1,410	\$208 447	\$1,745 2,336	\$3,228 3,494	..... \$282	\$15,379 20,376
Butter.....	{ 1886-7 1887-8	8,096 8,763	8,165 6,810	1,264 1,362	397 318	897 1,426	145 292	1,415 1,839	1,456 1,628	..... 306	21,835 22,744
Milk.....	{ 1886-7 1887-8	..... .....	..... .....	287 271	66 28	582 1,054	13 .....	562 712	367 463	..... 71	1,877 2,599
Eggs.....	{ 1886-7 1887-8	1,438 1,423	1,431 1,238	184 216	69 53	249 212	35 84	114 122	225 278	..... 100	3,745 3,726
Fruit.....	{ 1886-7 1887-8	2,890 3,833	2,468 2,551	448 534	170 206	453 603	158 235	414 430	376 463	..... 203	7,377 9,068
Meats, fish and poultry.....	{ 1886-7 1887-8	15,976 16,555	10,474 13,499	2,061 1,862	726 538	1,514 1,892	245 493	2,015 1,980	8,199 8,454	..... 974	41,210 46,237
Sundry supplies.....	{ 1886-7 1887-8	8,611 9,535	7,503 7,461	931 1,106	458 438	880 1,373	223 393	1,516 1,942	2,592 3,007	..... 680	22,714 26,935
Vegetables.....	{ 1886-7 1887-8	759 1,266	371 1,078	303 310	116 263	163 457	111 123	26 842	1,988 2,259	..... 335	3,837 6,933
Freight on food.....	{ 1886-7 1887-8	882 721	373 343	43 33	17 14	38 36	..... .....	41 65	139 190	..... 23	1,533 1,425
Totals .....	{ 1886-7 1887-8	\$43,620 48,258	\$34,101 37,886	\$6,303 6,556	\$2,434 2,325	\$5,493 8,463	\$1,138 2,067	\$7,848 10,268	\$18,570 20,236	..... \$2,974	\$119,507 139,033



TABLE "N."

PER CAPITA STATEMENT OF THE SUB-CLASSIFICATION OF FOOD SHOWING THE COST OF FOOD PER YEAR FOR EACH PERSON FED (INCLUDING OFFICERS AND EMPLOYEES) IN THE STATE CORRECTIONAL AND CHARITABLE INSTITUTIONS FOR THE TWO YEARS ENDING JULY 31, 1887, AND JULY 31, 1888.

Year.	St. Peter Hos- pital for In- sane.	Rochester Hos- pital for In- sane.	School for the Deaf.	School for the Blind.	School for the Feeble-mind- ed.	School for Chil- dren.	Reform School.	State Prison.	Soldiers Home.	Totals.
{ 1886-7 1887-8 }	1005.1 1065.3	717.9 848.5	146.0 150.7	49.5 52.9	137.9 197.9	34.4 83.8	229.2 268.3	427.9 462.7	40.4	2,747.9 3,171.4
Average number fed.....										
Breadstuffs.....	\$4.94 5.78	\$4.62 5.78	\$5.36 5.79	\$8.40 8.83	\$5.20 7.12	\$6.05 5.33	\$7.61 8.70	\$7.55 7.55	\$6.97	\$5.66 6.42
Butter.....	8.05 8.22	11.37 8.03	8.66 9.04	7.94 6.02	6.51 7.20	4.21 3.49	6.16 6.86	3.41 3.52	7.57	7.95 7.17
Milk.....	.....	.....	1.96 1.80	1.36 1.52	4.22 5.33	.38	2.45 2.65	.85 1.00	1.76	.68 .82
Eggs.....	1.43 1.33	1.99 1.46	1.26 1.43	1.34 1.00	1.81 1.07	1.03 1.00	.50 .45	.53 .60	2.47	1.36 1.17
Fruit.....	2.87 3.60	3.44 3.55	3.07 3.44	3.44 3.90	3.28 3.05	4.59 2.80	1.81 1.60	.88 1.00	5.02	2.69 2.86
Meats, fish and poultry.....	16.90 15.52	14.59 15.91	14.11 12.29	14.60 10.17	10.97 9.56	7.12 5.88	8.79 7.38	19.17 18.27	24.14	15.00 14.58
Sundry supplies.....	8.57 8.95	10.45 8.80	6.38 7.33	9.40 8.27	6.38 6.93	6.49 3.23	5.88 7.24	6.06 6.50	16.80	8.27 8.18
Vegetables.....	.76 1.19	.52 1.27	2.07 2.05	2.34 4.98	1.18 2.81	3.23 1.47	.11 3.14	4.62 4.88	1.40	1.40 2.19
Freight on food.....	.88 .68	.52 .40	.29 .22	.34 .26	.28 .19	.....	.18 .25	.83 .41	.....	.55 .45
Total annual cost per person.....	\$43.40 45.27	\$47.50 44.65	\$43.15 43.50	\$49.16 43.95	\$39.83 42.76	\$33.10 24.66	\$34.24 38.27	\$43.40 43.73	\$73.61	\$43.50 43.84
Cost of food for each day's board.....	\$0.12 .122	\$0.135 .122	\$0.118 .119	\$0.135 .121	\$0.109 .117	\$0.091 .067	\$0.094 .105	\$0.121 .12	\$0.201	\$0.119 .123

TABLE "O"

SHOWING THE AVERAGE PRICES PAID FOR TWENTY-EIGHT ARTICLES OF FOOD PURCHASED FOR THE STATE  
CORRECTIONAL AND CHARITABLE INSTITUTIONS DURING THE TWO YEARS ENDING JULY 31,  
1887, AND JULY 31, 1888.

ARTICLES.	St. Peter Hospital for Insane.	Rochester Hospital for Insane.	School for the Deaf.	School for the Blind.	School for the Feeble- minded.	School for Dependent Children.	State Re- form School.	State Prison.	State Soldiers Home.	Totals.
Apples, barrels.....	328	443	109	34	77	10	25	28	.....	1,054
Total cost, 1886-7.....	\$507.90	\$932.05	\$238.40	\$75.10	\$170.65	\$31.45	\$73.00	\$71.45	.....	\$2,190.00
Average price.....	1.82	2.10	2.19	2.21	2.22	3.15	2.92	2.55	.....	2.08
Barrels.....	338	287	78	26	59	22	39	26	10	885
Total cost, 1887-8.....	\$832.58	\$734.39	\$207.30	\$69.35	\$158.30	\$59.95	\$108.75	\$71.44	\$29.50	\$2,271.56
Average price.....	2.46	2.56	2.65	2.67	2.68	2.72	2.78	2.75	2.95	2.56
Apples dried, pounds.....	5,134	1,837	150	100	100	21	2,020	1,020	.....	10,952
Total cost, 1886-7.....	\$542.87	\$128.64	\$9.00	\$6.75	\$37.75	\$11.49	\$190.79	\$72.65	.....	\$999.94
Average price.....	1.06	1.07	.06	.068	.079	.054	1.04	.071	.....	.091
Beans, bushels.....	7,151	1,318	.....	100	219	330	1,149	665	330	11,262
Total cost, 1887-8.....	\$636.53	\$118.85	.....	\$9.00	\$18.14	\$29.99	\$39.56	\$41.82	\$30.43	\$1,034.32
Average price.....	.097	.09	.....	.09	.083	.09	.078	.063	.092	.092
Beans, bushels.....	.....	.....	13	7	9	7	.....	184	.....	230
Total cost, 1886-7.....	.....	.....	\$18.42	\$9.11	\$13.70	\$9.92	\$21.22	\$308.47	.....	\$380.84
Average price.....	.....	.....	1.42	1.24	1.61	1.42	2.08	1.68	.....	1.66
Bushels.....	12.5	39	11	2.3	2.4	.....	.....	72.5	8.5	148.2
Total cost, 1887-8.....	\$28.70	\$94.63	\$24.61	\$5.65	\$6.35	.....	.....	\$138.99	\$24.73	\$323.66
Average price.....	2.30	2.43	2.24	2.45	2.65	.....	.....	1.92	2.91	2.18
Butter, pounds.....	50,222	51,274	6,444	2,096	4,838	.....	.....	8,898	.....	131,511
Total cost, 1886-7.....	\$8,095.78	\$8,165.10	\$1,263.67	\$396.54	\$897.03	\$144.97	\$1,414.84	\$1,456.38	.....	\$21,834.31
Average price.....	1.61	.159	1.96	1.89	1.85	733	7,086	8,898	.....	1.66
Pounds.....	51,503	37,275	6,920	1,659	7,313	20	8,770	10,130	1,491	126,590
Total cost, 1887-8.....	\$8,763.04	\$6,809.65	\$1,362.08	\$318.16	\$1,425.75	1,529	\$1,838.65	\$1,627.75	\$306.66	\$22,742.90
Average price.....	17	182	197	192	195	191	121	16	.20	18
Cheese, pounds.....	2,058	1,692	92	111	218	77	156	1,248	.....	5,652
Total cost, 1886-7.....	\$203.14	\$174.71	\$10.77	\$14.41	\$27.54	\$11.39	\$20.56	\$150.18	.....	\$612.70

Average price.....	.099	1.03	.117	.13	.126	.148	.182	.12	108
Pounds.....	2,304	2,986	175	74	242	141	250	216	7,687
Total cost, 1887-8.....	\$272.64	\$316.70	\$23.78	\$10.15	\$29.84	\$21.30	\$31.66	\$26.62	\$874.35
Average price.....	.119	1.08	.136	.137	.123	.151	.126	.123	.114
Coffee, pounds.....	11,237	11,003	726	375	801	156	1,788	3,364	29,400
Total cost, 1886-7.....	\$2,268.37	\$2,265.87	\$116.92	\$82.03	\$137.62	\$38.08	\$340.02	\$388.08	\$5,887.80
Average price.....	.206	.206	.219	.219	.172	.244	.196	.19	.20
Total cost, 1886-7.....	10,688	8,966	161	310	1,101	283	2,350	4,207	29,165
Pounds.....	2,684.38	\$1,905.32	\$175.19	\$73.50	\$252.49	\$77.93	\$489.39	\$784.58	\$6,571.53
Average price.....	.251	.212	.218	.237	.23	.275	.208	.186	.225
Total cost, 1887-8.....	2,436	1,246	648	369	307	263	319	380	5,948
Crackers, pounds.....	\$157.42	\$40.04	\$20.56	\$18.06	\$18.06	\$16.46	\$18.45	\$20.11	\$364.30
Average price.....	.069	.059	.062	.056	.059	.101	.058	.056	.061
Total cost, 1886-7.....	2,180	3,453	964	439	436	203	407	268	8,975
Pounds.....	\$152.32	\$174.93	\$80.17	\$23.03	\$22.10	\$13.78	\$22.11	\$14.13	\$504.35
Average price.....	.07	.05	.052	.052	.05	.068	.054	.05	.056
Total cost, 1887-8.....	12,553	15,010	1,485	526	1,869	291	748	1,625	34,107
Eggs, dozen.....	\$1,438.39	\$1,431.11	\$184.25	\$68.91	\$249.15	\$35.35	\$114.19	\$224.00	\$3,745.98
Average price.....	.115	.095	.124	.131	.133	.121	.153	.138	.11
Total cost, 1886-7.....	1,274	11,720	1,560	386	1,569	575	780	1,961	30,455
Dozen.....	\$1,423.05	\$1,237.62	\$216.03	\$2.79	\$211.82	\$33.63	\$124.55	\$273.54	\$3,727.96
Average price.....	.126	.105	.138	.137	.135	.145	.16	.142	.122
Total cost, 1887-8.....	1,250	805	168	40	156	33	376	770	3,598
Flour, barrels.....	\$4,269.61	\$2,783.40	\$629.60	\$153.00	\$599.25	\$150.38	\$1,603.00	\$2,960.08	\$13,148.32
Average price.....	3.42	3.46	3.75	3.83	3.84	4.56	4.26	3.81	3.65
Total cost, 1886-7.....	1,633	1,692	176	31.4	273.5	89.6	493.5	853	4,675
Barrels.....	\$5,307.25	\$4,272.89	\$636.17	\$123.45	\$1,087.30	\$362.94	\$2,151.45	\$3,312.40	\$17,468.90
Average price.....	3.24	3.91	3.90	3.93	3.97	4.05	4.35	3.88	3.74
Total cost, 1887-8.....	76.5	21.4	2.6	2.7	9.5	9	2	8.4	124
Flour, graham, barrels.....	\$254.00	\$42.00	\$9.70	\$10.90	\$40.76	\$3.50	\$11.00	\$29.70	\$401.56
Average price.....	3.32	3.00	3.73	4.04	4.27	3.98	5.50	3.43	3.24
Barrels.....	96.5	31	4.8	3.5	4.5	3.5	2	8.6	161.4
Total cost, 1887-8.....	\$322.63	\$109.75	\$17.45	\$13.86	\$16.75	\$12.70	\$10.25	\$31.40	\$569.79
Average price.....	3.34	3.54	3.63	3.96	3.72	3.63	5.12	3.63	3.53
Total cost, 1886-7.....	2,156	1,700	630	675	800	350	4,770	4,770	11,865
Meal, corn, pounds.....	\$39.90	\$19.15	\$11.20	\$11.60	\$13.55	\$8.00	\$16.75	\$60.05	\$178.20
Average price.....	.018	.011	.017	.017	.017	.017	.021	.013	.015
Total cost, 1886-7.....	1,180	4,000	300	725	1,300	330	1,372	5,200	14,653
Pounds.....	\$21.90	\$49.85	\$4.80	\$13.80	\$21.40	\$5.25	\$29.50	\$71.15	\$222.90
Average price.....	.018	.012	.016	.019	.016	.016	.021	.014	.015
Total cost, 1887-8.....	1,372	1,666	1,078	\$9.16	\$9.50	\$18.40	\$90.75	\$11.25	\$208.61
Meal, oat, pounds.....	\$42.90	\$51.50	\$35.15	\$9.16	\$9.50	\$18.40	\$90.75	\$11.25	\$208.61
Average price.....	.031	.031	.036	.036	.028	.037	.031	.032	.032
Total cost, 1886-7.....	4,116	5,096	2,552	123	2,062	566	784	392	16,108
Pounds.....	\$133.65	\$171.40	\$75.94	\$6.88	\$63.08	\$22.25	\$27.50	\$11.35	\$522.68
Total cost, 1887-8.....	430,587a	128,684	7,966	7,966	16,536	2,554	16,661	104,980	516,020b
Average price.....	.032	.033	.031	.031	.031	.031	.031	.031	.031
Total cost, 1886-7.....	\$14,631.38	\$7,291.98	\$1,873.60	\$641.42	\$1,339.81	\$150.69	\$1,499.54	\$6,253.13	\$33,692.55

a Live weight. b Beef on hoof at St. Peter, reckoned at one-half live weight.

TABLE "Q" — CONTINUED.

SHOWING THE AVERAGE PRICES PAID FOR TWENTY-EIGHT ARTICLES OF FOOD PURCHASED FOR THE STATE  
CORRECTIONAL AND CHARITABLE INSTITUTIONS DURING THE TWO YEARS ENDING JULY  
31, 1887, AND JULY 31, 1888.

ARTICLES.	St. Peter Hospital for Insane.	Rochester Hospital for Insane.	School for the Deaf.	School for the Blind.	School for the Feeble- minded.	School for Dependent Children.	State Re- form School.	State Prison.	State Soldiers' Home.	Totals.
Average price.....	.034	.057	.081	.08	.081	.061	.09	.06	.....	.065
Pounds.....	444,758 a	179,922	21,569	5,530	20,870	6,780	14,259	80,840	6,728	558,877b
Total cost, 1887-8.....	\$14,716.05	\$10,795.38	\$1,722.54	\$442.38	\$1,669.56	\$388.09	\$1,263.55	\$4,579.29	\$536.94	\$36,133.78
Average price.....	.033	.06	.08	.....	.08	.057	.09	.057	.08	.066
Hams, smoked, pounds.....	607	65	Included	in	"Meats."	73	811	1,464	.....	3,020
Total cost, 1886-7.....	\$80.67	\$8.88	.....	.....	.....	\$8.60	\$100.43	\$167.81	.....	\$366.39
Average price.....	.133	.137	.081	.08	.081	.119	.124	.115	.....	.121
Pounds.....	93	510	Included	in	"Meats."	238	483	2,944	678	4,946
Total cost, 1887-8.....	\$13.64	\$68.08	.....	.....	.....	\$28.95	\$57.39	\$285.46	\$79.97	\$532.49
Average price.....	.146	.....	.08	in	"Meats."	.122	.119	.097	.116	.108
Lard, pounds.....	.....	1,939	Included	in	"Meats."	209	1,704	\$3.50	.....	3,902
Total cost, 1886-7.....	.....	\$150.48	.....	.....	.....	\$15.83	\$119.28	.....	.....	\$289.09
Average price.....	.....	.078	.081	.08	.081	.076	.07	.07	.....	.074
Pounds.....	1,712	145	.....	381	779	234	3,753	305	419	7,728
Total cost, 1887-8.....	\$38.98	\$11.60	.....	\$32.13	\$67.83	\$22.46	\$267.61	\$28.56	\$38.22	\$607.39
Average price.....	.081	.08	.084	in	.087	.096	.071	.093	.091	.079
Poultry, dressed, pounds.....	11,710	14,514	Included	in	"Meats."	44	746	482	.....	27,496
Total cost, 1886-7.....	\$879.40	\$1,240.60	.....	.....	.....	\$3.51	\$68.93	\$47.64	.....	\$2,240.08
Average price.....	.075	.085	.081	.08	.081	.08	.092	.10	.....	.0815
Pounds.....	13,044	15,644	Included	in	"Meats."	33	740	1,360	57	30,878
Total cost, 1887-8.....	\$1,050.97	\$1,284.97	.....	.....	.....	\$2.71	\$72.52	\$150.65	\$7.15	\$2,568.97
Average price.....	.081	.081	.08	.08	.08	.08	.098	.111	.13	.083
Fish, fresh, pounds.....	15,935	13,007	Included	in	"Meats."	.....	65	251	.....	29,258
Total cost, 1886-7.....	\$1,032.54	\$829.52	.....	.....	.....	.....	\$5.85	\$23.35	.....	\$1,891.26
Average price.....	.065	.064	.081	in	.081	.....	.09	.093	.....	.065
Pounds.....	20,915	9,814	Included	in	"Meats."	40	220	514	927	32,430
Total cost, 1887-8.....	\$1,569.20	\$743.98	.....	.....	.....	\$4.25	\$1.30	\$44.47	\$87.98	\$2,467.78
Average price.....	.075	.076	.08	.08	.08	.10	.08	.086	.095	.078



Codfish, pounds.....	4,389	6,845	445	4	1,672	120	500	3,220	17,195
Total cost, 1886-7.....	\$323.32	\$426.94	\$22.20	\$ .38	\$78.10	\$9.00	\$22.50	\$147.35	\$1,029.79
Average price.....	.074	.062	.05	.09	1.047	.075	.045	.046	.06
Pounds.....	2,718	1,840	480	139	1,379	160	119	4,600	11,215
Total cost, 1887-8.....	\$206.00	\$37.60	\$27.41	\$14.48	\$72.99	\$12.40	\$7.40	\$23.10	\$689.58
Average price.....	.075	.073	.06	.10	.06	.078	.062	.05	.061
Oysters, quarts.....	228	232	209	62	77	7	57	99	971
Total cost, 1886-7.....	\$34.65	\$74.50	\$72.97	\$24.96	\$28.64	\$2.95	\$21.75	\$42.75	\$353.17
Average price.....	.371	.321	.349	.403	.372	.421	.382	.432	.364
Quarts.....	182	294	160	75	95	19	49	454	1,332
Total cost, 1887-8.....	\$70.25	\$126.00	\$55.88	\$24.29	\$34.45	\$5.50	\$19.25	\$144.79	\$482.31
Average price.....	.38	.43	.35	.33	.36	.29	.40	.32	.362
Milk, quarts.....			7,179	369	14,561	322	14,028	12,282	48,741
Total cost, 1886-7.....			\$257.16*	\$20.56	\$582.44	\$13.07	\$561.12	\$363.26	\$1,827.61
Average price.....			.04	.055	.04	.04	.04	.0375	.0375
Quarts.....			6,455	689	27,276		15,736	15,776	67,283
Total cost, 1887-8.....			\$258.20	\$27.56	\$1,041.02		\$682.56	\$428.59	\$2,509.18
Average price.....			.04	.04	.038		.043	.027	.053
Molasses, gallons.....	302	207		22		40	317	455	1,843
Total cost, 1886-7.....	\$93.02	\$113.43		\$14.20		\$20.00	\$182.59	\$150.06	\$573.90
Average price.....	.308	.548		.645		.50	.592	.331	.427
Gallons.....	601	560		2		36.5	360	107	1,744.5
Total cost, 1887-8.....	\$202.20	\$230.97		.70		\$22.40	\$202.95	\$30.45	\$723.73
Average price.....	.336	.41		.35		.61	.56	.285	.414
Potatoes, bushels.....	1,589	452	511	107	141	151	2,313	2,313	5,264
Total cost, 1886-7.....	\$540.45	\$187.52	\$205.98	\$51.51	\$70.82	\$64.43	\$1,030.36	\$1,030.36	\$2,151.07
Average price.....	.34	.415	.403	.479	.502	.428	.445	.409	.409
Bushels.....	1,295	872	463	332	551	80	1,170	2,850	7,871
Total cost, 1887-8.....	\$893.53	\$633.46*	\$215.99	\$198.93	\$318.15	\$51.45	\$810.87	\$1,492.53	\$4,791.01
Average price.....	.69	.726	.47	.60	.58	.64	.70	.52	.68
Prunes, pounds.....	6,524	2,664	291	135	471	389	341	1,058	11,583
Total cost, 1886-7.....	\$487.80	\$157.54	\$12.48	\$8.31	\$23.17	\$22.72	\$28.85	\$56.65	\$797.52
Average price.....	.075	.059	.043	.062	.049	.058	.085	.054	.067
Pounds.....	8,320	2,455	327	236	691	477	843	1,980	15,664
Total cost, 1887-8.....	\$510.41	\$121.48	\$14.71	\$14.67	\$34.09	\$23.90	\$46.29	\$84.98	\$23.20
Average price.....	.061	.05	.045	.06	.064	.05	.055	.043	.07
Rice, pounds.....	5,270	3,506	737	125	1,236	292	552	855	12,573
Total cost, 1886-7.....	\$316.96	\$105.41	\$38.07	\$6.00	\$66.86	\$15.73	\$31.50	\$46.98	\$687.51
Average price.....	.06	.047	.052	.048	.059	.054	.057	.055	.055
Pounds.....	4,792	3,304	719	248	1,357	356	266	450	11,692
Total cost, 1887-8.....	\$309.17	\$198.99	\$40.71	\$14.04	\$74.50	\$18.88	\$16.62	\$24.75	\$710.73
Average price.....	.064	.06	.057	.057	.055	.053	.062	.065	.061
Salt, barrels.....	221	2	8	2	7		4	30	299
Total cost, 1886-7.....	\$271.80	\$41.15	\$12.55	\$3.20	\$10.05		\$4.60	\$35.35	\$378.70
Average price.....	1.23	1.54	1.57	1.60	1.44		1.15	1.18	1.27
Barrels.....	35	87	7	6	11		7	25	130.5

a Live weight. b Beef on hoof at St. Peter, reckoned at one half live weight.

TABLE "O"—CONCLUDED.

SHOWING THE AVERAGE PRICE PAID FOR TWENTY-EIGHT ARTICLES OF FOOD PURCHASED FOR THE STATE  
CORRECTIONAL AND CHARITABLE INSTITUTIONS DURING THE TWO YEARS ENDING JULY  
31, 1887, AND JULY 31, 1888.

ARTICLES.	St. Peter Hospital for Insane.	Rochester Hospital for Insane.	School for the Deaf.	School for the Blind.	School for the Feeble minded.	School for Dependent Children.	State Re- form School.	State Prison.	State Soldiers Home.	Totals.
Total cost, 1887-8.....	\$64.25	\$63.45	\$9.35	\$8.15	\$14.90	.....	\$9.00	\$30.15	\$4.45	\$203.70
Average price.....	1.84	1.71	1.33	1.36	1.35	.....	1.28	1.20	1.80	177.56
Sugar, pounds.....	44,089	40,015	6,004	2,964	5,905	1,389	10,504	6,889	.....	117,739
Total cost, 1886-7.....	\$2,528.18	\$2,385.63	\$374.17	\$185.62	\$380.54	\$79.70	\$613.54	\$402.71	.....	\$6,950.09
Average price.....	.057	.06	.062	.063	.064	.057	.058	.057	.....	.059
Tea, pounds.....	52,895	42,135	6,546	2,823	9,711	2,145	12,032	7,212	3,755	139,254
Total cost, 1887-8.....	\$3,293.60	\$2,867.39	\$435.44	\$187.11	\$376.46	\$147.48	\$793.78	\$463.36	\$273.54	\$9,138.16
Average price.....	.062	.068	.066	.066	.069	.069	.066	.064	.073	.0656
String, gallons.....	1,446	719	355	2	156	.....	229	2,066	.....	4,973
Total cost, 1886-7.....	\$411.81	\$194.53	\$159.64	\$7.70	\$69.97	.....	\$73.90	\$619.52	.....	\$1,530.07
Average price.....	.285	.271	.45	.35	.45	.....	.205	.30	.....	.307
Gallons.....	1,265	463.5	.....	61.5	205	32	65.64	2,901.5	37	5,170.5
Total cost, 1887-8.....	\$411.01	\$154.63	.....	\$22.81	\$78.64	\$13.75	.32	\$865.36	\$14.50	\$1,626.34
Average price.....	.325	.333	.....	.37	.383	.43	.32	.30	.392	.315
Tea, pounds.....	4,048	5,343	195	140	143	25	256	1,217	.....	11,367
Total cost, 1886-7.....	\$1,324.49	\$1,442.16	\$69.45	\$46.91	\$50.50	\$8.75	\$95.90	\$345.74	.....	\$3,383.90
Average price.....	.287	.251	.357	.335	.353	.35	.375	.284	.....	.298
Pounds.....	3,855	4,884	110	105	143	76	407	1,624	267	11,476
Total cost, 1887-8.....	\$1,280.94	\$1,016.51	\$34.65	\$40.70	\$44.67	\$22.74	\$130.00	\$364.19	\$73.25	\$3,007.65
Average price.....	.332	.208	.315	.39	.30	.30	.32	.22	.28	.262

TABLE "P."

## MINNESOTA STATE CORRECTIONAL AND CHARITABLE INSTITUTIONS.

*Fiscal Years Ending July 31, 1888, and July 31, 1888.*

COMPARISON OF THE ACTUAL COST OF TWENTY-EIGHT STAPLE ARTICLES PURCHASED FOR THE STATE CORRECTIONAL AND CHARITABLE INSTITUTIONS WITH THE COST, HAD THEY BEEN PURCHASED AT THE AVERAGE OF THE PRICES PAID BY ALL OF THE INSTITUTIONS.

INSTITUTION.	Year.	Actual Cost of 28 Staple Articles of Food.	Cost of Same had the Average Prices Prevailed.	Would Have Been How Much Less or More than Actual Cost.
State prison.....	{ 1886-7 1887-8	\$15, 739 15, 800	\$16, 332 17, 315	3.8 per cent more. 9.6 per cent more.
Rochester hospital for insane.....	{ 1886-7 1887-8	30, 776 34, 425	32, 727 35, 353	6.3 per cent more. 2.7 per cent more.
St. Peter hospital for insane.....	{ 1886-7 1887-8	40, 916 45, 390	40, 875 45, 752	.1 per cent less. .7 per cent more.
School for dependent children.....	{ 1886-7 1887-8	897 1, 747	829 1, 684	7.6 per cent less. 3.6 per cent less.
School for the deaf.....	{ 1886-7 1887-8	5, 700 5, 660	5, 056 5, 212	11.3 per cent less. 7.9 per cent less.
School for the feeble-minded.....	{ 1886-7 1887-8	4, 917 7, 445	4, 414 6, 869	10.2 per cent less. 7.7 per cent less.
School for the blind.....	{ 1886-7 1887-8	1, 862 1, 745	1, 627 1, 597	12.6 per cent less. 8.5 per cent less.
Reform school.....	{ 1886-7 1887-8	7, 285 9, 410	6, 232 8, 214	14.5 per cent less. 12.7 per cent less.
Soldiers home.....	{ 1886-7 1887-8	..... 2, 335	..... 1, 961	..... 16.0 per cent less.
Totals.....	{ 1886-7 1887-8	\$108, 092 123, 957	\$108, 092 123, 957	.....

TABLE "Q."

SHOWING THE MOVEMENT OF THE POPULATION, DAYS' BOARD  
STATE CORRECTIONAL AND CHARITABLE INSTITU-

YEAR ENDING JULY 31, 1887.	HOSPITALS FOR INSANE.		Soldiers' Home at Minneapolis
	Hospital at St. Peter.	Hospital at Rochester.	
MOVEMENT OF POPULATION (INMATES).			
Present Aug. 1, 1886.....	860	605	
Since admitted, new.....	292	182	
Former inmates readmitted.....	40	38	
Totals (including each person only once).....	1,192	825	
Discharged or temporarily dismissed.....	196	125	
Died.....	59	32	
Present July 31, 1887, males.....	580	326	
Present July 31, 1887, females.....	357	342	
Total number present.....	937	668	
Totals (including each person only once).....	1,192	825	
Temporarily absent or out on probation, July 31, 1887.....	89	46	
AVERAGES.			
Total number of days' board furnished.....	366,867	262,012	
Deduct days' board furnished officers and employes.....	39,436	31,497	
Number days' board furnished inmates.....	327,431	230,515	
Average number of inmates year ending July 31, 1887.....	897.1	631.6	
Average number of inmates for school term.....			
YEAR ENDING JULY 31, 1888.			
MOVEMENT OF POPULATION (INMATES).			
Present Aug. 1, 1887.....	937	668	
Admitted, new, during the year.....	270	271	81
Former inmates readmitted.....	58	30	
Transferred from the other hospital.....	40	122	
Totals (including each person only once).....	a 1,183	b 1,051	81
Discharged or temporarily dismissed.....	176	155	17
Died.....	53	65	1
Transferred to the other hospital.....	122	40	
Present July 31, 1888, males.....	524	498	63
Present July 31, 1888, females.....	480	333	
Total number present.....	954	831	63
Totals (including each person only once).....	a 1,183	b 1,051	81
Temporarily absent or out on probation, July 31, 1888.....	25	74	14
AVERAGES.			
Total number of days' board furnished.....	390,201	310,567	14,798
Deduct days' board furnished officers and employes. ....	44,371	35,584	2,410
Number of days' board furnished inmates.....	345,830	274,983	12,388
Average number of inmates, year ending July 31, 1888.....	944.9	751.3	33.8
Average number of inmates for school term.....			c 48.8

(a) Deducting 122 men, transferred to Rochester.

(b) Deducting 40 women, transferred to St. Peter.



TABLE "Q."

FURNISHED AND AVERAGE NUMBER OF INMATES IN THE INSTITUTIONS FOR THE TWO YEARS ENDING JULY 31, 1888.

INSTITUTE FOR DEFECTIVES AT FARIBAULT.			School for Dependent Children at Owatonna.	CORRECTIONAL INSTITUTIONS.		TOTALS.
School for the Deaf.	School for the Blind.	School for the Feeble-Minded.		Prison at Stillwater.	Reform School at St. Paul.	
30	9	43	71	387	191	2,086
135	38	68		208	98	958
		56			5	312
165	47	167	71	595	294	3,356
163	47	46	11	178	73	839
2		4		5		102
		69	39	405	195	1,614
		48	29	7	26	801
		117	60	412	221	2,415
165	47	167	71	595	294	3,356
144	42	32	11		197	561
53,307	18,062	50,307	12,569	156,194	83,676	1,002,994
10,800	6,608	12,202	2,856	10,950	9,618	123,967
42,507	11,454	38,105	9,713	145,244	74,058	879,027
116.4	31.4	104.4	26.6	397.9	202.9	2,408.3
155.7	42	112.2				
		117	60	412	221	2,415
30	8	43	73	188	96	1,060
144	42	32	5	27	11	349
174	50	192	138	627	328	3,824
172	48	45	48	186	89	936
2		7	1	4	1	134
		79	67	433	205	1,869
	2	61	22	4	33	885
	2	140	89	437	238	2,754
174	50	192	138	627	328	3,824
164	41	42	51		242	653
55,170	19,381	72,427	30,672	169,334	98,193	1,160,743
11,330	6,882	14,900	6,311	13,236	11,222	146,246
43,840	12,499	57,527	24,361	156,098	86,971	1,014,497
119.8	34.1	157.2	66.6	426.5	237.6	2,771.8
164.2	45.6	165.1				

c For the time since the opening of the soldiers' home Nov. 21, 1888.

TABLE "R."

SHOWING THE NATIVITY OF THE PARENTS OF INMATES RECEIVED INTO THE STATE INSTITUTIONS OF MINNESOTA, COMPARED WITH THE NATIVITY OF THE PARENTS OF THE INHABITANTS OF THE STATE.

BIRTH PLACE.	All Inhabitants of State, Census <i>a</i> 1885.	School for the Deaf, 1863-1888.	School for the Blind, 1863-'88.	School for the Feeble-minded, 1881-1888.	School for Dependent Children, 1886-1888.	Reform School, 1868-'88.	State Prison, 1884-1888.	Total Number of Inmates.
Scandinavia.....	280,500	89	19	43	32	89	60	332
Germany or Austria.....	240,100	94	19	48	24	168	107	460
Ireland.....	98,500	60	15	24	20	207	158	483
British America.....	70,100	28	7	8	5	79	26	153
England or Scotland.....	44,300	21	4	12	0	47	48	132
Bohemia.....	17,900	5	1	0	1	9	3	19
Other countries.....	44,900	17	3	13	5	21	20	79
Total of foreign parentage.....	796,300	314	68	148	87	620	422	1,659
Native parentage.....	321,498	132	52	84	57	384	232	941
Grand totals.....	1,117,798	446	120	232	144	1,004	654	2,600

THE SAME REDUCED TO PERCENTAGES.

Scandinavia.....	25.1	20.	15.8	13.5	22.2	8.9	9.2	13.
Germany or Austria.....	21.4	21.1	15.8	20.7	16.7	16.8	16.4	17.5
Ireland.....	8.8	13.5	12.6	10.3	14.	20.7	24.1	19.
British American.....	6.3	6.3	5.8	3.5	3.4	7.9	7.3	5.
England or Scotland.....	4.	4.7	3.3	5.2	.....	4.7	7.3	5.4
Bohemia.....	1.6	1.1	.8	.....	.....	.9	.5	.7
Other countries.....	4.	3.8	2.5	5.6	3.4	2.1	3.	3.4
Total of foreign parentage.....	71.2	70.5	56.6	63.8	60.4	62.	64.5	64.
Native parentage.....	28.8	29.5	43.4	36.2	39.6	38.	35.5	36.
Grand totals.....	100.	100.	100.	100.	100.	100.	100.	100.
Irish, English, Scotch and Canadian.....	19.1	24.5	21.7	19.0	17.4	33.3	35.4	29.5

a. The state census of 1885 gives the total number of persons having foreign born parents, but does not distribute them among the several nationalities. The distribution here given is based upon a careful study of the distribution shown by the United States census of 1880, and is believed to closely approximate the truth.

TABLE "T."  
SUMMARY OF THE INVENTORIES OF STATE PROPERTY, FIXED AND MOVABLE, AT THE STATE CORRECTIONAL AND CHARITABLE INSTITUTIONS, JULY 31, 1888.

KIND OF PROPERTY.	(a) Fergus Falls Hospital for Insane.	St. Peter Hospital for Insane.	Rochester Hospital for Insane.	(a) State Soldiers' Home.	School for the Deaf.	School for the Blind.	School for the Feeble-Minded.	School for Depend- ren.	Reform School.	State Prison.	(a) St. Cloud Reformatory.	TOTALS.
<b>FIXED PROPERTY.</b>												
Lands (at cost).....	\$24,539	\$20,192	\$20,200	(a) \$9,253	\$21,625	\$9,184	\$10,786	(a) \$2,253	\$17,272	\$22,150	(a) \$1,681	\$149,882
Buildings and fixtures.....	19,344	676,882	328,800	.....	200,000	56,202	113,580	66,951	85,284	596,380	11,074	2,158,750
Total fixed property.....	\$37,883	\$697,074	\$350,000	\$9,253	\$221,625	\$65,386	\$124,366	\$69,204	\$102,556	\$618,530	\$12,755	\$2,308,632
<b>MOVABLE PROPERTY.</b>												
Food.....	.....	\$1,130	\$1,672	\$130	\$210	\$86	\$270	\$157	\$395	\$497	.....	\$4,547
Clothing and bedding.....	.....	19,757	8,913	1,060	2,101	851	1,612	1,516	4,059	6,171	.....	46,040
Laundry supplies.....	.....	471	199	6	71	117	90	62	59	1,125	.....	2,200
Fuel.....	.....	1,485	180	.....	.....	106	.....	37	546	.....	.....	2,353
Lighting supplies.....	.....	91	.....	.....	1	4	4	4	7	.....	.....	2,111
Medical supplies.....	.....	719	550	100	5	5	511	9	15	206	.....	2,120
Postage and telephone.....	.....	.....	130	.....	16	3	.....	6	.....	.....	.....	2,155
Books and stationery.....	.....	2,867	1,029	.....	817	1,582	251	306	84	156	.....	7,092
Amusements and instruction.....	.....	685	1,200	.....	568	1,136	494	113	494	.....	.....	4,690
Household supplies.....	.....	5,625	8,606	800	994	2,182	3,757	650	1,070	2,240	.....	22,870
Furniture.....	.....	18,717	10,219	850	3,605	1,599	3,757	1,105	4,619	2,484	.....	46,955
Building material.....	.....	797	4,168	.....	1,401	1,213	14	440	428	.....	.....	7,681
Tools and machinery.....	.....	618	2,340	7	1,242	167	383	1,288	6,464	58,686	.....	71,195
Farm, stock and grounds.....	.....	12,621	8,655	89	1,205	665	1,037	3,235	1,912	.....	.....	29,419
Industrial training supplies.....	.....	.....	.....	.....	1,546	186	401	.....	9,818	.....	.....	11,951
Total movable property.....	.....	\$65,583	\$47,861	\$3,042	\$13,782	\$7,422	\$11,006	\$8,928	\$29,970	\$71,735	.....	\$259,329
Grand totals.....	\$37,883	\$762,657	\$397,861	\$12,295	\$235,407	\$72,808	\$135,372	\$78,132	\$132,526	\$690,265	\$12,755	\$2,567,962
Capacity (inmates).....	.....	1,000	900	.....	175	55	170	100	250	615	.....	3,265
INVENTORY PER INMATE.												
Fixed property per inmate.....	.....	\$696	389	.....	\$1,266	\$1,189	\$622	\$732	\$410	\$1,005	.....	\$698
Movable property.....	.....	65	53	.....	79	135	55	65	120	117	.....	80
Total inventory per inmate.....	.....	\$762	\$442	.....	\$1,345	\$1,324	\$677	\$797	\$530	\$1,122	.....	\$778

(a) No inventory filed. Value of property estimated by the secretary of the board of corrections and charities.

TABLE "S."

SHOWING THE NATIVITY OF INMATES OF THE MINNESOTA HOSPITALS FOR INSANE, THE STATE PRISON, AND THE WORKHOUSES OF ST. PAUL AND MINNEAPOLIS.

COUNTRY WHERE BORN.	Population of Minnesota, Census of 1885.	Hospitals for Insane—Inmates Received.		State Prison—Inmates on Hand.		Population of Ramsey County, Census of 1885.	St. Paul City Work-houses—Inmates Received, 1887.	Population of Hennepin County, Census of 1885.	Minneapolis City Work-house—Inmates Received, 1887.	Population of Hennepin and Ramsey Counties Combined, Census of 1885.	St. Paul and Minneapolis City Work-houses Combined—Inmates Received, 1887.
		22 years, 1865-1888.	4 years, 1884-1888.	July 31, 1886.	July 31, 1888.						
Scandinavia.....	184,948	1,785	694	34	34	13,125	282	25,497	271	38,622	553
Germany and Austria...	118,572	1,012	367	34	43	20,003	184	10,419	81	30,422	265
Ireland.....	31,801	563	173	22	14	6,914	338	4,855	238	11,769	576
British America.....	45,473	296	101	24	26	4,719	114	8,426	109	13,145	223
England and Scotland...	17,517	165	71	16	19	2,772	102	3,177	99	5,939	201
Bohemia.....	7,645	62	26	2	.....	1,536	11	1,373	7	1,909	18
Other countries.....	21,557	278	106	9	9	2,603	54	1,808	29	4,411	83
Total foreign born.....	427,513	4,161	1,538	141	145	51,672	1,085	54,545	834	106,217	1,919
Native born.....	690,285	2,440	947	246	292	64,555	1,063	94,192	793	158,747	1,856
Grand total.....	1,117,798	6,601	2,485	387	437	116,227	2,148	148,737	1,627	264,964	3,775



TABLE "S"—CONCLUDED.

COUNTRY WHERE BORN.	Population of Minnesota, Census of 1885.		Hospitals for Insane—Inmates Received.		State Prison—Inmates on Hand.		Population of Ramsey County, Census of 1885.		St. Paul City Work-house—Inmates Received, 1887.		Population of Hennepin County, Census of 1885.		Minneapolis City Workhouse—Inmates Received, 1887.		Population of Hennepin and Ramsey Counties Combined, Census of 1885.		St. Paul and Minneapolis City Work-houses Combined—Inmates Received, 1887.	
	Per Cent.	22 years, 1866-1883.	4 years, 1884-1888.	Per Cent.	July 31, 1886.	July 31, 1888.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.		
Scandinavia.....	16.5	26.4	28.	8.8	7.8	11.3	13.1	17.2	16.7	14.6	14.6	14.6	16.7	14.6	14.6	14.6		
Germany and Austria...	10.6	15.2	14.8	8.8	9.8	17.2	8.7	7.	5.	11.4	11.4	11.4	5.	11.4	11.4	7.		
Ireland.....	2.9	8.5	7.	5.7	3.2	6.	15.7	3.2	14.6	4.4	4.4	4.4	14.6	4.4	4.4	15.3		
British America.....	4.1	4.4	4.1	6.2	6.	4.1	5.3	5.7	6.7	5.	5.	5.	6.7	5.	5.	5.9		
England and Scotland...	1.5	2.9	2.9	3.4	4.3	2.4	4.7	2.1	6.1	2.2	2.2	2.2	6.1	2.2	2.2	5.3		
Bohemia.....	.7	.9	1.	.5	.....	1.3	.5	.3	.4	.8	.8	.8	.4	.8	.8	.5		
Other countries.....	1.9	4.2	4.3	2.3	2.1	2.2	2.5	1.2	1.8	1.7	1.7	1.7	1.8	1.7	1.7	2.2		
Total foreign born.....	38.2	62.5	62.1	35.7	33.2	44.5	50.5	36.7	51.3	40.1	40.1	40.1	51.3	40.1	40.1	50.8		
Native born.....	61.8	37.5	37.9	64.3	66.8	55.5	49.5	63.3	48.7	59.9	59.9	59.9	48.7	59.9	59.9	49.2		
Grand total .....	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.		
England, Ireland, Scotland and Canada.....	8.5	14.7	14.	15.3	13.5	12.5	25.7	11.	27.4	11.6	11.6	11.6	27.4	11.6	11.6	26.5		

TABLE "U."  
SHOWING THE NATIVITY OF STATE PRISON  
OF ALL

NATIVITY OF THE POPULATION OF EIGHT

BIRTH PLACE.	Minnesota Census of 1885.	Wisconsin Census of 1880.	Iowa Census of 1880.	Michigan Census of 1880.
Scandinavia.....	184,948	66,284	46,046	16,445
Germany or Austria.....	118,572	188,929	89,741	90,110
Ireland.....	31,801	41,907	44,061	43,413
British America.....	45,473	28,965	21,097	148,866
England or Scotland.....	17,517	30,686	29,404	53,933
Bohemia.....	7,645	13,848	10,554	1,789
Other countries.....	21,557	34,806	20,747	33,952
Total foreign born.....	427,513	405,425	261,650	388,508
Native born.....	690,285	910,072	1,362,965	1,248,429
Grand totals.....	1,117,798	1,315,497	1,624,615	1,636,937

NATIVITY OF CONVICTS IN THE STATE

BIRTH PLACE	Minnesota On hand July 31, 1886.	Wisconsin Received 1884-6.	Iowa Two Prisons Rec'd, 1885-87.
Scandinavia.....	34	28	13
Germany or Austria.....	34	71	36
Ireland.....	22	12	35
British America.....	24	37	13
England or Scotland.....	16	13	21
Bohemia.....	2		
Other countries.....	9	16	8
Total foreign born.....	141	177	126
Native born.....	246	291	608
Grand totals.....	387	468	734
England, Scotland, Ireland and Canada.....	62	62	69

NATIVITY OF ALL INHABITANTS, COMPARED WITH THE  
OF THE UNION

BIRTH PLACE.	MINNESOTA.		WISCONSIN.		IOWA.		MICHIGAN.	
	All In- hab- itants.	Con- victs.	All In- hab- itants.	Con- victs.	All In- hab- itants.	Con- victs.	All In- hab- itants.	Con- victs.
Scandinavia.....	16.5	8.8	5.	6.	2.8	1.8	.1	.2
Germany or Austria.....	10.6	8.8	14.4	15.2	5.5	4.9	5.5	4.8
Ireland.....	2.9	5.7	3.2	2.6	2.7	4.8	2.3	4.3
British America.....	4.1	7.2	2.2	7.9	1.3	1.8	9.1	13.8
England or Scotland.....	1.5	3.4	2.3	2.8	1.8	2.9	3.3	6.5
Bohemia.....	.7	.5						
Other countries.....	1.9	2.3	3.7	3.3	2.	1.5	3.4	2.2
Total foreign born.....	38.2	36.7	30.8	37.8	16.1	17.7	23.7	31.8
Native born.....	61.8	63.3	69.2	62.2	83.9	82.3	76.3	68.2
Grand totals.....	100.	100.	100.	100.	100.	100.	100.	100.
England, Scotland, Ire- land and Canada.....	8.5	15.3	7.7	13.3	5.8	9.5	14.7	24.6

TABLE "U."

CONVICTS COMPARED WITH THE NATIVITY INHABITANTS.

STATES OF THE UNION. (See Table "R.")

Illinois Census of 1880.	Ohio Census of 1880.	Pennsylvania Census of 1880	Massachusetts Census of 1880.	Totals Census of 1880.
65,414	2,006	8,901	5,791	396,015
238,394	192,597	168,426	17,180	1,107,947
117,343	78,927	236,505	226,700	820,657
34,043	16,146	12,376	119,302	426,268
71,963	50,500	100,837	59,770	414,611
13,408	6,232	1,058	279	54,813
43,011	48,535	59,726	14,469	272,624
583,576	394,943	587,829	443,491	3,492,935
2,494,295	2,803,119	3,695,062	1,339,594	14,543,821
3,077,871	3,198,062	4,282,891	1,783,085	18,036,756

PRISONS OF EIGHT STATES OF THE UNION.

Michigan Received, 1880-2.	Illinois Two Prisons Rec'd 1882-84.	Ohio Received, 1878.	Pennsylvania Two prisons Received 1887.	Massachusetts On hand Sept. 30, 1885.	Totals.
1	28	2	.....	4	110
20	123	31	45	3	363
18	76	29	37	50	279
58	56	27	.....	26	241
27	77	24	33	43	254
.....	1	.....	.....	.....	3
9	43	11	39	11	146
133	404	124	154	137	1,396
285	1,634	669	619	355	4,707
418	2,038	793	773	492	6,103
103	209	80	70	119	774

NATIVITY OF STATE PRISON CONVICTS IN EIGHT STATES  
BY PERCENTAGES.

ILLINOIS.		OHIO.		PENNSYLVANIA.		MASSACHUSETTS		TOTALS.	
All In- hab- itants.	Conv- icts.	All In- hab- itants.	Conv- icts.	All In- hab- itants.	Conv- icts.	All In- hab- itants.	Conv- icts.	All In- hab- itants.	Conv- icts.
2.1	1.4	.1	.3	.....	.....	.3	.8	2.2	1.8
7.7	6.	6.	3.9	4.	5.8	.9	.6	6.1	5.9
3.8	3.7	2.5	3.7	5.3	4.8	12.7	10.2	4.5	4.6
1.1	2.8	.5	3.4	.....	.....	6.7	5.3	2.4	4.
2.3	3.8	1.6	3.	1.9	4.4	3.4	8.7	2.3	4.2
.4	.....	.....	.....	.....	.....	.....	.....	.3	.....
1.5	2.1	1.1	1.2	2.6	5.	.9	2.2	1.5	2.4
18.9	19.8	11.8	15.5	13.8	20.	24.9	27.8	19.3	22.9
81.1	80.2	88.2	84.5	86.2	80.	75.1	72.2	80.7	77.1
100.	100.	100.	100.	100.	100.	100.	100.	100.	100.
7.2	10.3	4.6	10.1	7.2	9.2	22.8	24.2	92.	12.8

TABLE "V."

## NATIVITY OF THE INHABITANTS OF

BIRTH PLACE.	St. Paul (Ramsey county), 1885.	Minneapolis (Hennepin county), 1885.	Chicago Census of 1880.
Scandinavia.....	13, 125	25, 497	26, 269
Germany or Austria.....	20, 003	10, 419	76, 561
Ireland.....	6, 914	4, 855	44, 411
British America.....	4, 719	8, 426	13, 914
England or Scotland.....	2, 772	3, 167	17, 197
Bohemia.....	1, 536	373	11, 887
Other countries.....	2, 603	1, 808	15, 620
Total foreign born.....	51, 672	54, 545	204, 859
Native born.....	64, 555	94, 192	298, 326
Grand totals.....	116, 227	148, 737	503, 185

## NATIVITY OF CONVICTS IN THE CITY WORK-

BIRTH PLACE.	St. Paul, Workhouse, 1887.	Minneapolis, Workhouse, 1887.	Chicago, House of Correction, 1885.
Scandinavia.....	282	271	328
Germany or Austria.....	184	81	628
Ireland.....	338	238	1, 267
British America.....	114	109	321
England or Scotland.....	102	99	474
Bohemia.....	11	7	.....
Other countries.....	54	29	135
Total foreign born.....	1, 085	834	3, 153
Native born.....	1, 063	793	3, 955
Grand totals.....	2, 148	1, 627	7, 108
England, Scotland, Ireland and Canada..	554	446	2, 062

## NATIVITY OF ALL INHABITANTS, COMPARED WITH THE CITIES IN THE UNITED

BIRTH PLACE.	ST. PAUL.		MINNEAPOLIS.		CHICAGO.	
	All Inhabitants.	City Convicts.	All Inhabitants.	City Convicts.	All Inhabitants.	City Convicts.
Scandinavia.....	11.3	<b>13.1</b>	17.2	<b>16.7</b>	5.2	<b>4.6</b>
Germany or Austria.....	17.2	<b>8.7</b>	7.	<b>5.</b>	15.2	<b>8.8</b>
Ireland.....	6.	<b>15.7</b>	3.2	<b>14.6</b>	8.8	<b>17.8</b>
British America.....	4.1	<b>5.3</b>	5.7	<b>6.7</b>	2.8	<b>4.5</b>
England or Scotland.....	2.4	<b>4.7</b>	2.1	<b>6.1</b>	3.4	<b>6.7</b>
Bohemia.....	1.3	<b>.5</b>	.3	<b>.4</b>	2.2	.....
Other countries.....	2.2	<b>2.5</b>	1.2	<b>1.8</b>	3.1	<b>1.9</b>
Total foreign born.....	44.5	<b>50.5</b>	36.7	<b>51.3</b>	40.7	<b>44.3</b>
Native born.....	55.5	<b>49.5</b>	63.3	<b>48.7</b>	59.3	<b>55.7</b>
Grand totals.....	100.	<b>100.</b>	100.	<b>100.</b>	100.	<b>100.</b>
England, Scotland, Ireland and Canada	12.5	<b>25.7</b>	11.	<b>27.4</b>	15.	<b>29.</b>



TABLE "V."

SEVEN CITIES IN THE UNITED STATES.

Cincinnati Census of 1880.	Cleveland Census of 1880.	Detroit Census of 1880.	Milwaukee Census of 1880.	Totals.
117	301	143	1,433	65,885
46,157	23,428	17,420	32,438	226,426
15,077	11,958	6,775	3,659	93,649
1,182	4,331	10,754	973	44,299
3,736	9,001	5,983	2,109	43,965
146	5,433	557	1,537	21,469
5,244	4,957	4,013	3,924	38,169
71,659	59,409	45,645	46,073	533,862
183,480	100,737	70,695	69,514	881,499
255,139	160,146	116,340	115,587	1,415,361

HOUSES OF SEVEN CITIES IN THE UNITED STATES.

Cincinnati, Workhouse, 1882.	Cleveland, Workhouse, 1884.	Detroit, House of Correction, 1887.	Milwaukee, House of Correction, 1886.	Totals.
9	19	9	51	969
629	198	170	476	2,366
638	339	349	204	3,373
45	102	287	36	1,014
95	176	159	66	1,171
.....	21	.....	13	52
35	59	37	58	407
1,451	914	1,011	904	9,352
1,586	10,11	1,183	720	10,311
3,037	1,925	2,194	1,624	19,663
778	617	795	306	5,558

NATIVITY OF CONVICTS IN THE WORKHOUSES OF SEVEN STATES BY PERCENTAGES

CINCINNATI.		CLEVELAND.		DETROIT.		MILWAUKEE.		TOTALS.	
All In- habitants.	City Convicts.	All In- habitants.	City Convicts.	All In- habitants.	City Convicts.	All In- habitants.	City Convicts.	All In- habitants.	City Convicts.
.05	.3	.2	1.	.1	.4	1.2	3.1	4.7	4.9
18.1	20.7	14.6	10.3	15.	7.8	28.6	29.3	16.	12.
5.9	21.	7.5	17.6	5.9	15.9	3.2	12.6	6.6	17.1
.4	1.5	2.7	5.3	9.2	13.1	.8	2.2	3.1	5.2
4.	3.1	5.6	9.1	5.1	7.2	1.8	4.1	3.1	6.
.05	.....	3.4	1.1	.5	.....	1.3	.8	1.5	.3
.4	1.2	3.1	3.1	3.4	1.7	3.	3.6	2.7	2.1
28.9	47.8	37.1	47.5	39.2	46.1	39.9	55.7	37.7	47.6
71.1	52.2	62.9	52.5	60.8	53.9	60.1	44.3	62.3	52.4
100.	100.	100.	100.	100.	100.	100.	100.	100.	100.
10.3	25.6	15.8	32.	20.2	36.	5.8	18.9	12.8	29.3

For table "T," showing a summary of the inventories of state institutions, see page 121, the order having been changed to avoid breaking up tables.

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## SECRETARY'S REPORT.

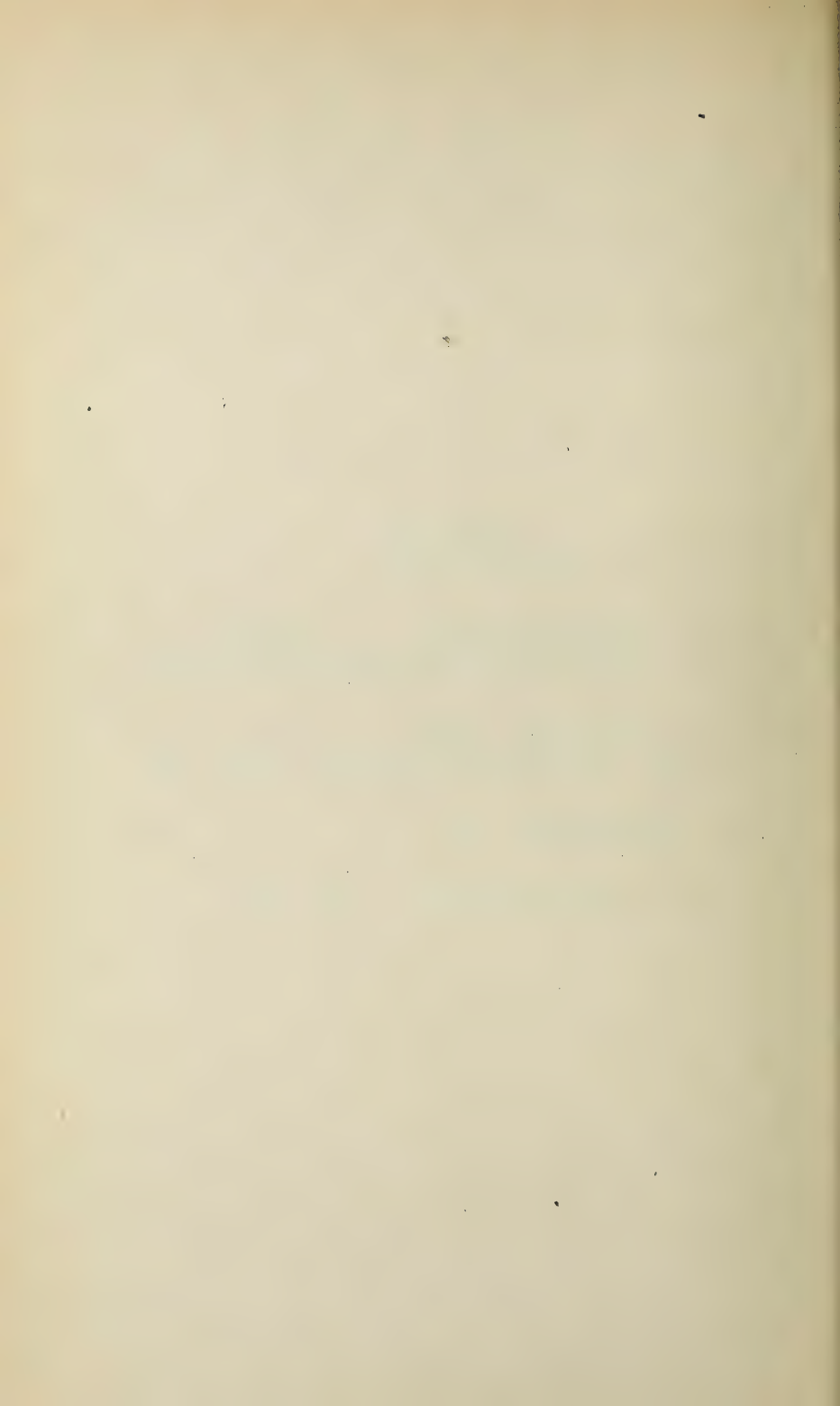
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### PART II.

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## LOCAL CORRECTIONAL INSTITUTIONS.

1. COUNTY JAILS, WITH TABLES "W" TO "AA."
2. CITY AND VILLAGE LOCKUPS, WITH TABLES "BB"  
TO "DD."
3. CITY WORKHOUSES.





## THE COUNTY JAILS OF MINNESOTA.

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During the biennial period new jails have been constructed in the counties of Olmsted, Rock, Morrison and Aitkin.

The Olmsted county jail is built on a plan similar to the plan of the Otter Tail county and Goodhue county jails, but is less expensive, having only sixteen cells. The jail is divided into four distinct parts, affording separation for the sexes, insane persons and children, and permitting economical heating. The cells are seven by eight feet. The floors are of stone flagging. The sheriff's residence is convenient and complete and the jail is in other ways satisfactory.

The Aitkin county jail was built on plans approved by the board of corrections and charities. These plans were not thoroughly satisfactory, but were approved in view of the limited amount of money available.

The Rock county jail was built without consulting the board of corrections and charities as required by law. The jail is located in the basement of the beautiful new court house and is destined to be a public nuisance, being badly lighted and imperfectly ventilated.

The Morrison county jail was built without consulting with the board of corrections and charities, as required by law. It has not yet been inspected by the secretary of the board.

The board of commissioners of St. Louis county have agreed upon plans for a county jail, which have been approved by the board of corrections and charities. These plans are similar to the plans of the Otter Tail county, Goodhue county and Olmsted county jails, and will produce a thoroughly satisfactory building.

Ramsey county will be compelled to build a new jail soon. The old jail is a public nuisance and is an eyesore to the community on account of its proximity to the new court house and city hall.

It has been proposed to build a county jail on one of the corners adjacent to the court house. In my judgment this is entirely unnecessary. It will be more economical and satisfactory for the county to go back a few squares where cheap land can be found either on the face of the bluff or in some other convenient locality. By this plan more ground can be had for less money, the jail can be isolated from public view, and more light and air can be had. The jail can be constructed of brick instead of stone, and the expense of land and building can be diminished at least one-third.

Attention is respectfully called to the report of the Hon. H. R. Wells, a member of this board, on district workhouses, which will be found in the supplement.

#### EXPENSE OF THE COUNTY JAIL SYSTEM.

An effort has been made, in the accompanying tables (X and Y) to show the expense of carrying on the county jail system. There are 50 county jails in use in the state, with a united capacity of 693 prisoners. During the year 1887 the average number of prisoners in these 50 jails was 164.5. Only 5 averaged more than 5 prisoners each, namely those of Hennepin, Ramsey, St. Louis, Winona and Stearns counties. The remaining 45 jails had a total average population of only 65.7 prisoners, or 1.5 prisoners each. Twenty jails averaged less than one prisoner each. The cost of keeping the 65.7 prisoners in these 45 jails was \$32,912, or \$501 per prisoner, being \$9.60 per week. The cost of keeping an average of 98.6 prisoners in the 5 jails of Hennepin, Ramsey, St. Louis, Winona and Stearns counties was \$25,548, or \$259 per prisoner, being \$4.96 per week (about half as much as in the smaller jails).

The cause of the higher cost in the smaller jails is the necessity of keeping a jailor and heating the jail, no matter how small the number. The board of prisoners costs about the same, ranging from \$3.25 per week in Ramsey and Hennepin counties, to \$4 per week, which is the usual rate. But Scott county, for instance, averaged 0.22 prisoners and paid for board of prisoners \$45.14; jailor's salary \$475; heating jail, \$50; miscellaneous expenses, \$15.80; total \$479.75, making a yearly rate of \$2,663 per prisoner, or \$47.50 for each week's board of prisoners.

Carlton county kept an average of 0.29 prisoners at a cost of \$411; Douglas 1, costing \$860; Faribault 0.59, costing \$566; Le

Sueur 0.62, costing \$756; McLeod 1.11, costing \$10.28; Mille Laes 0.19, costing \$185; Morrison 0.35, costing \$344; Nicollet 0.25, costing \$669; Scott 0.22, costing \$586; Steele 0.6, costing \$620; making an average in the ten counties for the year of 5.2 prisoners, maintained at a cost of \$6,025, an average of \$1,160 per prisoner, or \$22.20 per week.

These figures show, in part, the extravagance of maintaining these small jails, but the expenses as given above do not include repairs or any interest on the plant. The 50 jail buildings have cost about \$550,000, on which the interest at 6 per cent would be \$33,000. The 45 jail buildings cost about \$425,000, on which the interest at 6 per cent would be \$25,000. During the year 1887 about \$17,000 was expended for repairs.

Furthermore, it is impossible in these small jails to provide proper separation and classification of prisoners, or to secure proper sanitary conditions. It is impossible, also to provide work for prisoners serving sentence.

The remedy is to abolish the present county jail system, establishing district jails, in connection with which there should be labor for convicted prisoners. For example, the jails at Crookston, Fergus Falls, St. Cloud, Duluth, St. Paul, Minneapolis, Red Wing, Winona, Austin, Mankato, Worthington and Montevideo might easily accomodate all the prisoners for the state and would then have an average of only about 14 prisoners each. What is now paid for jailors' salaries would pay all transportation expenses. The prisoners could be boarded at less cost than now and be more suitably kept. Each county would need three or four iron cells to keep prisoners during court sessions, and the sheriff could employ a watchman for two or three nights at such times. The building of small jails should be stopped, and the counties maintaining district jails should be remunerated for the use of their buildings. In course of time district work houses would grow up in connection with the district jails.

#### REMARKS ON THE TABLES OF STATISTICS OF COUNTY JAILS.

Table "W" is a description of the county jails of the state. The aggregate cost of the county jails has been \$541,500. The total capacity is 693 persons. Only 27 jails have separate rooms for women.

Table "X" exhibits the cost of maintaining persons in the county jails.

Table "Y" shows the same reduced to a per capita. It will be seen that the average annual rate for maintaining prisoners ranges from \$234.80, in Brown county, to \$2,677.60, in Nicollet county. In the latter case the high rate, of course, is due to the very small number of prisoners, the average being only one-fourth of a prisoner.

It will be observed that this table does not include sheriff's fees, expense for repairs of jails or interest on the plant.

Tables "Z" and "AA" exhibit the movement of population in jails during the years 1886 and 1887.

The following is a summary of these tables:

YEAR 1886.	Males.	Females.	Total.
Number in jail Jan. 1, 1886.....	203	3	206
Received during the year.....	2,967	137	3,104
Total prisoners during year.....	3,170	140	3,310
Sent to the state prison during the year.....	175	.....	175
Sent to the reform school.....	56	4	60
Released on bail.....	169	4	173
Released on writ of habeas corpus.....	5	.....	5
Acquitted or discharged on <i>nolle prosequi</i> .....	19	.....	19
No indictment found.....	49	.....	49
Escaped.....	22	.....	22
Discharged on expiration of sentence.....	1,098	10	1,108
Discharged on payment of fine.....	71	4	75
Sent to insane hospital.....	110	39	149
Otherwise removed from jail.....	1,253	77	1,330
Total number passed out of jail during 1886.	3,027	138	3,165
Remaining Dec. 31, 1886.....	143	2	145



YEAR 1887.	Males.	Females.	Total.
Number in jail Jan. 1, 1887.....	146	2	148
Received during the year.....	2,412	118	2,530
Total prisoners during year.....	2,558	120	2,678
Sent to state prison during the year.....	176	.....	176
Sent to the reform school.....	37	1	38
Released on bail.....	207	10	217
Released on writ of habeas corpus.....	12	1	13
Acquitted or discharged <i>nolle prosequi</i> .....	56	3	59
No indictment found.....	80	.....	80
Escaped .....	14	.....	14
Discharged on expiration of sentence.....	907	8	915
Discharged on payment of fine.....	123	8	131
Sent to insane hospital.....	143	22	165
Otherwise removed from jail.....	643	62	705
Total number passed out of jail during 1887.	2,398	115	2,513
Remaining Dec. 31, 1887.....	160	5	165

It will be observed that out of 3,310 prisoners during the year 1886, only 1,343 were shown to have been convicted of any crime, and that during the year 1887 out of 2,678 prisoners, only 1,129 were shown to have been convicted of crime.

The following statement taken from the biennial report of the attorney general shows the result of all prosecutions during the years 1886 and 1887, including prisoners sent to jail and persons released on bail.

In 1886, out of 2,413 prosecutions, 1,485 resulted in conviction and in 1887 out of 2,211 prosecutions, 1,288 resulted in conviction, from which it would appear that a very large proportion of persons accused of crime were not guilty in the eyes of the law.

YEAR 1886.	Number of Prosecutions.	Convictions.	Acquittals.	Nolle Pros. and Dismis'ss.	Pending Dec. 31.
In district courts.....	1,080	574	129	114	263
In municipal and justice courts.....	1,333	911	144	263	15
Total for 1886.....	2,413	1,485	273	377	278
Year 1887.					
In district courts.....	951	425	126	145	255
In municipal and justice courts.....	1,260	863	161	230	6
Total for 1887.....	2,211	1,288	287	375	261

TABLE "W."

COUNTY JAILS OF MINNESOTA, DEC. 31, 1887.

COUNTIES.	Date of Erection.	Material.	Cost.	Number of Cells.	No. of Prisoners to a Cell.	Capacity of Jail.	Largest No. Prisoners at one time.	Average No. of Prisoners.	Separate Rooms for Women.
Atkin.....	1888	Brick and iron.....	\$5,000	2	4	8	4	.5	1
Anoka (condemned).....	1877	Stone.....	.....	2	2 to 3	4	2	.8	.....
Becker.....	1885	Brick and iron.....	6,000	2	4	8	6	1.4	1
Blue Earth.....	1876	Stone.....	615,000	9	1 to 2	12	8	3.8	1
Brown.....	.....	Brick and stone.....	610,000	8	1	8	3	2.3	.....
Carlton (condemned).....	1878	Wood.....	1,000	4	2	8	5	.3	.....
Carver.....	1862	Brick.....	63,000	3	2	6	.....	.7	.....
Chippewa.....	1882	Brick and iron.....	2,000	2	1	2	4	.3	.....
Clay.....	1883	Brick and iron.....	13,000	6	2 to 6	24	10	4.6	2
Crow Wing.....	1882	Brick and iron.....	8,000	4	2 to 4	10	5	2.	2
Dakota.....	1869	Iron and stone.....	620,000	10	2 to 3	20	11	4.4	1
Douglas.....	1881	Brick.....	6,000	5	1	5	3	1.	1
Faribault.....	1880	Brick and iron.....	8,000	2	1 to 4	4	3	.6	.....
Fillmore.....	1870	Brick, iron and wood.....	16,000	10	2	20	6	2.	2
Freeborn.....	1877	Brick and iron.....	4,500	4	1	4	8	3.6	.....
Goodhue.....	1886	Brick and iron.....	23,000	27	1	24	8	4.5	1
Hennepin.....	1867	Stone and iron.....	45,000	33	2 to 6	96	85	36.5	1
Houston.....	1875	Stone and iron.....	23,000	21	1	21	2	1.5	1
Isanti (condemned).....	1875	Wood.....	550	2	.....	4	.....	.....	.....
Kanabec.....	1883	Wood.....	2,100	2	4	8	4	.1	.....
Kandiyohi.....	1883	Brick and iron.....	10,000	3	4	12	7	2.1	2
Kittson.....	1881	Wood.....	1,200	4	2	4	.....	.9	.....
Le Sueur.....	1880	Brick and iron.....	15,000	5	4	12	5	.6	1
McLeod.....	1877	rick and iron.....	7,000	2	2	4	2	1.1	.....
Martin.....	1881	rick and iron.....	66,000	2	2	8	1	.3	.....
Meeker.....	1882	Brick and iron.....	3,500	2	4	10	3	1.	2

1876	Mille Lacs (condemned).....	Wood.....	450	2	1	2	.2
1888	Morrison.....	Brick.....	7,000	2	2	4	.7
1886	Mower.....	Brick and iron.....	14,000	8	2	16	1.
1869	Nicollet.....	Stone and iron.....	16,000	8	1	8	.8
1877	Nobles.....	Wood....	1,200	1	6	6	1.7
1887	Olmsted.....	Brick and iron.....	21,000	4	2	16	1.8
1885	Otter Tail.....	Brick, stone and iron.....	22,000	26	1	26	1.9
1874	Polk.....	Wood.....	4,000	2	.....	8	3.7
	Pope (condemned).....	Stone <i>a</i> .....	6500	2	2	4	.....
1857	Ramsey.....	Stone.....	a25,000	28	2	56	36.
1874	Renville.....	Stone and wood.....	b3,000	3	1	3	7.5
1888	Rice.....	Stone and iron <i>a</i> .....	7,000	4	2	6	1.7
	Rock.....	Stone and iron <i>a</i> .....	b8,000	3	2	6	.....
1882	St. Louis.....	Brick and iron.....	15,000	8	4	26	12.
1882	Scott.....	Brick and iron.....	11,000	8	1	8	.2
1871	Sibley.....	Brick and wood.....	4,500	3	2	3	.....
1868	Stearns.....	Brick.....	10,000	6	2	12	6.3
1876	Steele.....	Brick and iron.....	9,000	3	6	14	.....
1883	Stevens.....	Brick and iron.....	b6,000	3	4	10	1.3
1878	Swift.....	Wood.....	1,500	2	2	4	.2
	Todd.....	Brick and iron.....	3,900	4	4	16	1.2
1872	Wabasha.....	Stone, brick and iron.....	23,000	9	2	18	1.5
1878	Waseca.....	Stone, brick and iron.....	18,000	8	1 and 2	10	.8
1868	Washington.....	Brick and iron.....	b15,000	9	2	18	2.3
1883	Wilkin.....	Brick and iron.....	a2,200	2	2	10	2.
1871	Winona.....	Stone and iron.....	28,000	24	.....	28	7.8
1879	Yellow Medicine.....	Wood.....	600	4	.....	19	.....
Total.....			\$541,500	358	.....	693	171.5

*a* Basement of Court House. *b* Estimated.

TABLE "X."

COST OF MAINTAINING PRISONERS IN COUNTY JAILS OF MINNESOTA FOR THE YEAR 1887, EXCLUDING EXPENDITURES FOR REPAIRS, INTEREST ON PLANT, AND SHERIFF'S FEES.

COUNTY.	Capacity of jail.	Average number of prisoners.	Boarding prisoners.	Jailer's salary.	Estimated cost of heating jail.	Washing and miscellaneous expenses.	Total jail expenses.	Yearly rate per prisoner.
Aitkin.....	8	0.52	\$105.16	\$241.00	\$20.00	\$44.04	\$410.20	\$789.00
Anoka.....	4	0.79	162.85	0.00	.....	32.33	195.18	247.00
Becker.....	8	1.43	298.95	600.00	30.00	23.65	952.60	666.00
Blue Earth.....	12	3.83	492.80	730.00	25.00	151.84	1,399.64	365.00
Brown.....	8	2.33	472.00	0.00	75.00	.....	547.00	235.00
Carlton.....	8	0.29	61.40	300.00	50.00	.....	411.40	1,419.00
Carver.....	6	0.73	152.85	360.00	20.00	.....	532.85	780.00
Chippewa.....	2	0.03	62.65	100.00	.....	10.00	172.65	575.00
Clay.....	24	4.64	966.80	480.00	200.00	.....	1,646.80	354.00
Crow Wing.....	10	2.05	430.00	480.00	50.00	2.25	962.25	469.00
Dakota.....	20	4.38	684.87	540.00	50.00	.....	1,274.87	291.00
Douglas.....	5	1.02	220.00	600.00	40.00	.....	860.00	843.00
Faribault.....	4	0.59	111.92	417.50	25.00	11.65	566.07	960.00
Fillmore.....	20	2.01	316.50	600.00	40.00	.....	956.50	476.00
Freeborn.....	4	3.63	756.00	600.00	65.00	25.00	1,446.00	398.00
Goodhue.....	24	4.46	792.00	480.00	150.00	168.14	1,590.14	357.00
Hennepin.....	96	36.5	6,197.00	1,338.20	300.00	835.60	8,670.80	238.00
Houston.....	21	1.47	222.98	600.00	90.00	81.71	994.69	677.00
Kanabec.....	8	0.11	25.25	0.00	10.00	3.25	38.50	350.00
Kandiyohti.....	12	2.12	444.00	643.25	50.00	23.00	1,160.25	547.00
Kittson.....	4	0.89	168.78	240.00	10.00	.....	418.78	470.00
Le Sueur.....	12	0.62	129.60	467.00	160.00	.....	756.60	1,220.00
McLeod.....	4	1.11	288.00	640.00	100.00	.....	1,028.00	926.00
Martin.....	8	0.25	58.28	120.00	10.00	.....	188.28	753.00
Meeker.....	10	0.96	207.00	0.00	20.00	.....	227.00	236.00
Mille Lacs.....	2	0.19	39.50	95.00	5.00	45.91	185.41	976.00
Morrison.....	4	0.35	80.40	240.00	24.00	.....	344.40	984.00
Mower.....	16	1.58	247.30	420.00	196.95	61.44	925.69	586.00
Nicollet.....	8	0.25	29.40	600.00	40.00	.....	669.40	2,678.00
Nobles.....	6	1.68	362.27	338.15	40.00	.....	740.42	441.00
Olmsted.....	16	1.8	282.40	480.00	100.00	.....	862.40	479.00
Otter Tail.....	26	1.92	400.00	600.00	60.00	.....	1,060.00	552.00
Polk.....	8	3.13	577.66	480.00	30.00	.....	1,087.66	347.00
Ramsey.....	56	36.	6,213.38	1,560.00	500.00	93.59	8,366.97	232.00
Renville.....	3	1.48	310.00	540.00	50.00	.....	900.00	608.00
Rice.....	8	1.68	377.00	540.00	150.00	19.35	1,086.35	647.00
St. Louis.....	26	a12.	2,506.70	660.00	250.00	523.68	3,940.38	328.00
Scott.....	8	0.22	45.14	475.00	50.00	15.80	585.94	2,663.00
Sibley.....	4	0.63	132.00	318.00	16.00	13.75	479.75	762.00
Stearns.....	12	6.34	1,321.70	600.00	60.00	82.70	2,064.40	326.00
Steele.....	14	0.6	124.57	480.00	15.00	.....	619.57	1,033.00
Stevens.....	10	1.3	261.71	406.50	100.00	31.95	800.16	615.00
Swift.....	4	0.2	37.14	62.12	10.00	10.43	119.69	599.00
Todd.....	16	1.2	244.00	265.00	40.00	6.25	555.25	427.00
Wabasha.....	18	1.5	313.14	480.00	20.00	.....	813.14	542.00
Waseca.....	10	0.84	176.00	.....	100.00	.....	276.00	.....
Washington.....	18	2.32	484.00	480.00	50.00	.....	1,014.00	487.00
Wilkin.....	10	2.04	428.00	0.00	75.00	14.30	517.30	.....
Winona.....	28	7.8	1,573.14	600.00	200.00	132.65	2,505.79	321.00
Yellow Medicine.....	6	0.26	33.39	66.00	7.50	.....	106.89	552.00
Totals.....	679	164.5	\$80,427.58	\$21,362.72	\$3,779.45	\$2,462.26	\$58,134.01	\$353.00

a Including county prisoners — excluding city prisoners.



TABLE "Y."

PER CAPITA COST OF MAINTAINING PRISONERS IN COUNTY  
JAILS OF MINNESOTA FOR THE YEAR 1887, EX-  
CLUDING REPAIRS, INTEREST ON PLANT  
AND SHERIFFS' FEES.

COUNTY.	Capacity of Jail.	Average number of Prisoners.	Boarding Prisoners.	Jailer's Salary.	Estimated cost of Heating Jail.	Washing and Miscellaneous Expenses.	Total Yearly Cost per Prisoner.	Average Weekly Cost per Prisoner.
Aitkin.....	8	0.52	\$202.20	\$463.50	\$38.40	\$84.78	\$788.80	\$15.13
Anoka.....	4	0.79	206.10	.....	40.90	247.00	4.74	12.78
Becker.....	8	1.43	209.10	419.60	21.00	666.20	7.00	4.50
Blue Earth.....	12	3.83	128.70	190.60	6.50	365.40	14.00	11.03
Brown.....	8	2.33	202.60	.....	32.20	234.80	9.80	5.00
Carleton.....	8	0.29	211.70	1,034.50	172.40	1,418.60	18.17	9.40
Carver.....	6	0.73	209.40	493.20	27.40	730.00	11.03	4.20
Chippewa.....	2	0.3	208.80	533.30	.....	33.30	354.00	9.80
Clay.....	24	4.64	208.40	103.50	43.10	469.40	5.00	16.58
Crow Wing.....	10	2.05	209.80	234.10	24.40	1.10	291.00	18.17
Dakota.....	20	4.38	156.30	123.30	11.40	843.10	9.40	4.13
Douglas.....	5	1.02	215.70	588.20	39.20	356.50	6.46	4.85
Faribault.....	4	0.59	189.60	707.60	42.40	19.70	959.30	13.60
Fillmore.....	20	2.01	157.50	298.50	19.90	475.90	6.00	10.70
Freeborn.....	4	3.63	208.30	65.60	17.90	398.40	4.13	6.46
Goodhue.....	24	4.46	177.60	107.60	33.60	37.70	237.60	13.60
Hennepin.....	96	36.5	169.80	36.70	8.20	22.90	350.00	6.00
Houston.....	21	1.47	151.60	408.20	61.20	55.60	547.30	9.50
Kanabec.....	8	0.11	229.60	.....	90.90	29.50	470.50	23.00
Kandiyohi.....	12	2.12	209.50	303.40	23.60	10.80	926.20	17.50
Kittson.....	4	0.89	189.60	269.70	11.20	.....	753.10	4.25
Le Sueur.....	12	0.62	209.50	753.20	258.00	.....	236.40	18.55
McLeod.....	4	1.11	259.50	76.60	90.10	.....	585.80	51.25
Martin.....	8	0.25	233.10	480.00	40.00	.....	440.70	8.35
Meeker.....	10	0.96	215.60	.....	20.80	241.60	479.10	10.20
Mille Lacs.....	2	0.19	207.90	500.00	26.30	.....	325.70	6.60
Morrison.....	4	0.35	229.70	685.70	68.60	.....	608.10	11.45
Mower.....	16	1.58	156.50	265.80	124.60	38.90	646.60	6.40
Nicollet.....	8	0.25	117.60	2,400.00	160.00	.....	2,463.40	47.39
Nobles.....	6	1.68	215.60	201.30	23.80	.....	761.50	14.50
Olmsted.....	16	1.8	156.90	266.60	55.60	.....	325.70	6.60
Otter Tail.....	26	1.92	208.30	312.50	31.20	.....	552.00	3.00
Polk.....	8	3.13	184.50	153.20	9.60	.....	232.40	4.70
Ramsey.....	56	36.1	172.60	43.30	13.90	2.60	608.10	11.45
Renville.....	3	1.48	209.40	364.90	33.80	.....	646.60	12.65
Rice.....	8	1.68	224.40	321.40	89.30	11.50	328.40	6.40
St. Louis.....	26	12.2	208.90	55.00	20.80	43.70	2,463.40	47.39
Scott.....	8	.22	205.20	2,159.10	227.30	71.80	761.50	14.50
Sib'ey.....	4	.63	209.50	504.70	25.40	21.90	325.70	6.60
Stearns.....	12	6.34	208.50	94.70	9.50	13.00	1,032.60	19.25
Steele.....	14	.6	207.60	800.00	25.00	.....	615.50	5.80
Stevens.....	10	1.3	201.30	312.70	76.90	24.60	598.50	11.80
Swift.....	4	.2	185.70	310.60	50.00	52.20	462.60	8.50
Todd.....	16	1.2	203.30	220.80	33.30	5.20	542.00	10.99
Wabasha.....	18	.5	208.70	320.00	13.30	.....	328.50	6.30
Waseca.....	10	.84	209.50	.....	119.00	.....	437.00	8.40
Washington.....	18	2.32	208.60	206.90	21.50	.....	253.50	4.85
Wilkin.....	10	2.04	209.80	.....	36.70	7.00	321.20	6.15
Winona.....	28	7.8	201.70	76.90	25.60	17.00	620.30	4.90
Yellow Medicine.....	6	.26	224.50	366.70	29.00	.....	.....	.....
Totals.....	679	164.5	\$185.00	\$130.00	\$23.00	\$15.00	\$353.00	\$6.78

*a* Including county prisoners—excluding city prisoners.



Morrison.....	30	30	1	3	1	1	1	15	8	4	4	8	30
Mower.....	7	23	1	3	2	2	2	4	4	30	8	22	22
Nicollet, <i>b</i> .....	12	30	1	3	1	1	1	4	5	1	30	30	30
Nobles.....	14	8	1	3	1	1	1	4	5	4	4	12	1
Olmsted.....	2	24	1	2	1	1	2	4	8	3	1	17	7
Otter Tail.....	8	8	1	2	1	1	1	8	6	6	22	22	2
Folk.....	19	579	55	21	24	3	63	3	7	48	36	574	55
Ramsey.....	1	10	1	1	1	1	1	1	6	1	1	10	1
Renville.....	2	43	45	1	1	1	1	34	34	45	45	45	20
Rice, <i>b</i> .....	26	387	2	413	2	14	6	3	5	330	2	393	2
St. Louis, <i>d</i> .....	3	19	1	22	1	1	5	3	1	7	1	21	1
Scott.....	11	86	3	97	3	8	1	44	2	15	1	92	3
Sibley.....	12	1	12	1	2	1	3	5	1	1	1	12	1
Stearns.....	1	20	1	1	1	1	1	11	11	1	1	19	2
Steele.....	1	20	1	1	1	1	1	1	1	1	1	1	1
Stevens.....	1	20	1	1	1	1	1	1	1	1	1	1	1
Swift, <i>a</i> .....	1	20	1	1	1	1	1	1	1	1	1	1	1
Todd, <i>a</i> .....	35	35	3	1	1	1	1	16	16	3	2	32	3
Wabasha.....	92	22	1	4	4	3	10	10	10	2	2	22	2
Waseca.....	4	17	1	1	1	1	4	4	4	6	6	20	1
Washington.....	15	15	1	1	1	1	1	1	1	13	13	13	2
Wilkin, <i>b</i> .....	74	2	2	1	1	1	1	18	18	10	1	76	2
Winona.....	5	74	2	1	1	1	1	8	8	2	2	16	1
Yellow Medicine.....	17	17	2	4	4	4	4	4	4	2	2	16	1
Totals.....	206	2,964	140	3,170	140	175	56	4	169	4	5	1,253	77
												3,026	139
												145	

*a*. No report. *b*. Estimated; no report received. *c*. Prisoners re-committed are counted only once, except in Ramsey county. *d*. Includes city prisoners serving sentence.

TABLE

## COUNTY JAILS—MOVEMENT OF POP

COUNTIES.	Number in Jail Jan. 1, 1887.	Received during year.		Total pris- oners dur- ing year.		Sent to State Prison.		Sent to Reform School.		Acquitted or nolle pros.		Out on bail.	
		Male.	Female	Male.	Female	Male.	Female	Male.	Female	Male.	Female	Male.	Female
Aitkin.....		11		11		1						1	
Anoka.....		6		6		1							
Becker.....		13		13								4	
Blue Earth.....	2	42	1	44	1					5	1	3	
Brown.....	1	13		14		2							
Carleton.....		12	1	12	1	3				3			
Carver <i>a</i> .....												2	
Chippewa.....		9		9		1				2			
Clay.....	10	85	1	45	1	2				2		4	
Crow Wing <i>b</i> .....	1	29		30									
Dakota.....	7	40		47		5				5		6	
Douglas.....		15		15								4	
Faribault.....	1	6		7				1				2	
Fillmore.....	3	14		17		3						2	
Freeborn.....	2	25	1	27	1	1				4	1	2	
Goodhue.....	2	19	4	21	4	2					1	3	2
Hennepin.....	43	450	33	491	35	67		18				38	
Houston.....	1	6	3	7	3							1	
Kanabec.....		11		11									
Kandiyohi.....		22		22		1							
Kittson <i>a</i> .....													
Le Sueur.....		9		9		1						1	
McLeod.....		8	1	8	1	2						1	
Martin.....	1	2		3								1	
Meeker.....	1	21		22		1		2		3		2	
Mille Lacs <i>a</i> .....													
Morrison.....	1	24	1	25	1	3						1	
Mower.....		13	2	13	2					3		1	1
Nicollet.....		27	3	27	3							1	
Nobles.....		19		19		3						1	
Olmsted.....	2	11		13		5		1				1	
Otter Tail.....	1	33	3	34	3	1				4		4	
Polk.....		29	2	29	2	2				3		8	
Ramsey <i>c</i> .....	24	604	43	628	43	23		12	1	4		80	5
Renville.....	1	6		7						1		1	
Rice.....		29		29		3				1		2	
St. Louis <i>d</i> .....	24	504	5	528	5	14				2		8	1
Scott.....	1	16		17						5		1	
Sibley.....		6		6		1							
Stearns.....	5	88	4	93	4	6		2		6		3	
Steele.....		12	2	12	2	1							
Stevens.....	2	18		20						1		2	
Swift.....		3		3									
Todd.....		10		10						1		5	
Wabasha.....	3	20	1	23	1	4						3	1
Waseca.....	3	14	2	17	2	1						1	
Washington.....		29	1	29	1	5						2	
Wilkin.....	2	19		21		2		1		1		2	
Winona.....	3	59	4	62	4	8						3	
Yellow Medicine.....	1	1		2									
Totals.....	148	2,412	118	2,558	120	176		37	1	56	3	207	10

*a* No report.*b* Estimated. No report received.*c* Prisoners re-committed are counted only once, except in Ramsey county.*d* Includes city prisoners serving sentence.



“AA.”

ULATION DURING THE YEAR 1887.

On Habeas Corpus.		No Indictment found.		Escaped.		Sentence Expired.		Paid Fine.		Sent to Insane Hospital.		Otherwise Removed from Jail.		Total Number passed out of Jail.		Number in Jail Dec. 31, 1887.
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
1				1		5		3				1		11		
2						2			1					6		
						5		1						12		1
		2				21		7						39	1	5
		2				5		1				1		11		3
		1		1		3		1	1					12	1	
				1		2								8		1
		1		1		14	1			1		12		37	1	3
												27		27		3
		11				13		2				3		45		2
						8		1				2		15		
						4								7		
1						8		2						16		1
		2				14		1				2		26	1	1
2						7		2				2	1	18	4	3
		11				154		6		67		105	35	466	35	25
						1		1		1	2	2	1	6	3	1
				1		4		5		1				11		
		2				9		1				4		17		5
						4								6		3
						4	1							7	1	1
		1										1		3		
1						9		1		1				20		2
								7		1	1	10		22	1	3
						6	1			1				11		2
						2		16	1	2	2	6		27	3	
				1		4		2				8		19		
						1		1				4		13		
3		3				6		6	1	3	2	2		32	3	2
				2		5	1					6		26	2	3
		15		1		5		8	1	38	14	410	21	596	42	33
1						3								6		1
		1				13		5		1				26		3
		12		1		453		3				8	1	501	2	30
						6		1				4		17		
						2				3				6		
		2		2		34	1	26	3	3		2		86	4	7
						5	1	6			1			12	2	
						11		1				5		20		
						2								2		1
						2								8		2
						14				1				22		1
		1		1		7		2				4	2	17	1	
1	1					4		1		10		2		25		4
		4		1		5		1				3		20		1
		9				20	2	1		8		7	1	56	3	7
						1		1						2		
12	1	80		14		907	8	123	8	143	22	643	62	2,398	115	165

## THE COUNTY JAILS.

*Alphabetically by Counties.*

The first biennial report by the secretary contains a detailed description of most of the county jails of the state. The second biennial report contains a description of the county jails of Becker, Carver, Chippewa, Crow Wing, Faribault, Goodhue, McLeod, Mille Lacs, Mower, Otter Tail, Wabasha, and Yellow Medicine counties. In the present report no detailed descriptions are given, except in the case of new jails.

*Aitkin County.*—Built a new jail in 1888. The funds available for the purpose being limited, it was not practicable to build a jail which would fully meet the ideas of the state board of corrections and charities, but the county commissioners showed a disposition to do the best they could under the circumstances, and the plans were accordingly approved, as will be seen by the following correspondence:

OFFICE OF THE STATE BOARD OF  
CORRECTIONS AND CHARITIES. }  
ST. PAUL, March, 9, 1888. }

*To the Honorable Board of Commissioners of Aitkin County, Minnesota,*

GENTLEMEN: In order to enable you to close the contract with the Pauly Jail Company I have filed my approval of the contract executed between them and you, with the understanding, however, that the same is subject to the action of the state board of corrections and charities at their quarterly meeting on April 3d.

I wish, however, to offer the following suggestions:

The plan calls for double cell doors, one of plate and one of lattice. This arrangement, I understand, is intended to provide for the separation of prisoners in their cells from those in the corridors, in order that the corridors may be used for exercise. In my judgment it would be preferable to divide the corridor into two parts, each division of the corridor having its own entrance from the cell room. My reason for this is that I find that the corridors are seldom used by prisoners for the purpose of exercise, and that it will be very difficult to induce sheriffs to carry out the plan of separation with the proposed construction,

whereas, if the two cells and the two corridors are entirely distinct the sheriffs, will be compelled to separate the prisoners.

Another advantage of this change will be that it will prevent prisoners from combining to mob the jailer or to cut out.

I would also suggest that the water closet be dispensed with and that patent odorless night soil buckets be substituted, for the reason that I find almost invariably that the water closets in jails are unsatisfactory where there is no public water works. This has been the case in the counties of Faribault, Kandiyohi, Meeker, Scott, Steele, Stevens and Todd, where the use of the closets has been given up on account of their unsatisfactory condition.

Mr. Lewis, agent of the Pauly Manufacturing Company, informs me that the changes suggested above can be made without increasing the cost of the jail if your board should deem it wise. The board of corrections and charities appreciates the pains taken by your board to secure a properly constructed jail.

Very respectfully your obedient servant,

H. H. HART,  
*Secretary.*

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OFFICE OF THE STATE BOARD OF  
CORRECTIONS AND CHARITIES, }  
ST. PAUL, April 3, 1888. }

*To the Honorable Board of County Commissioners, Aitkin, Minn.,*

GENTLEMEN: I have to advise you that the state board of corrections and charities has this day ratified my action in approving the plans, specifications and contract made by your board with the Pauly Jail Manufacturing Company. Very respectfully,

Your obedient servant, H. H. HART,  
*Secretary.*

The plans provided for a jail to be built in the rear of the court house and attached thereto. The jail to be 24x42 feet, outside measurement, constructed of brick with a 12 inch solid wall. The sheriff's office 12x22 inside, with a staircase in the office. The cell room 28x22 inside and 12 feet high, lighted by two windows east and west and one window south, each to be 14x40 inches. The cell room to be ventilated by two flues, each 12x18 inches, adjoining smoke space. The cell room underlaid with

12 inches of rubble work composed of a concrete of broken brick, stones, etc., with cement. The ceiling of the cell room to be constructed in a similar manner. The cell room ceiling to be of brick arches on iron I beams filled in with concrete. The second story to be devoted to the sheriff's residence, containing a central hall  $3\frac{1}{2}$  feet wide; a pantry  $7\times 10$  feet; dining room,  $10\times 15$  feet; kitchen  $8\times 13$  feet; living room  $9\times 13$  feet; two bed rooms each  $11\times 14$  feet. The cell room is to be  $22\times 28$  feet and 12 feet high with fire proof ceiling. The arrangement is as good as can be made in the limited space included. Total number of prisoners in 1887, 13; average number, .5.

*Anoka County.*—The basement jail in this county has been condemned as unfit for use, and prisoners are now kept in the Anoka city lockup. This county jail is a conspicuous example of the folly of locating county jails in the basements of court houses. Total number of prisoners in 1887, 6; average number 0.79.

*Becker County* jail was built in 1885 at a cost of \$5,000. The board of corrections and charities in a communication dated Aug. 6, 1884, said:

"It is the judgement of this board that it would be for the interest of your county to postpone building a jail until such time as the county can afford to build a jail and sheriff's residence, apart from the court house. The board is of this opinion from the fact that it does not seem practicable in the space which you are able to inclose with your present means to provide adequate prison facilities and suitable accommodation for the sheriff's family." In case the county commissioners should deem it necessary to go forward with the plan, it was suggested first, that there should be a vegetable cellar; second, that there be a jail yard; third, that the plan of heating the jail by a furnace placed under the court house be abandoned; fourth, that there be no water closet in the jail; fifth, that the cage be so placed as to allow more light; sixth, that ventilation be provided; seventh, that cells be provided for women and boys; eighth, that a suitable sitting room be provided for the sheriff's family.

Sheriff W. A. Norcross, in his annual report for 1887, said: "The grand jury condemned the heating of the jail as you did at the time it was built. The jail has had twelve men in it for two weeks and it is too many for the size. The jailor has no cellar in which to keep vegetables from freezing in winter; he had a good deal laid in but it all froze. In case anything can be



done by your board we would like a larger jail, so we could accommodate our prisoners better than we now are able to do."

Sheriff Norcross, in his report for the nine months ending Sept. 30, 1888, says in reply to the question, "What are your rules with regard to the association of prisoners with each other?" "No rules can be enforced as they have to be together on account of the cells." The jail when visited seemed to be as well kept as the circumstances would allow. Total number of prisoners during 1887, 13; average number .7.

*Benton County* has no jail. Prisoners are kept in the Stearns county jail.

*Bigstone County* jail, burned down in November, 1885, has not been rebuilt. Prisoners are confined in Chippewa county jail.

*Blue Earth County* jail was well kept but is so constructed that it is impossible to keep the jail and the sheriff's residence in good sanitary condition. The sheriff was compelled to allow free association of prisoners, as the cells are not fit for constant confinement. Reading matter is furnished by the ladies of Mankato. Total number of prisoners during 1887, 57; average number, 3.8.

*Brown County* jail was not visited during the biennial period. Total number of prisoners during 1887, 14; average number, 2.3.

*Carlton County* jail has been condemned and has had no prisoners in it since 1887. Total number of prisoners during 1887, 13; average number, .2.

*Carver County* jail was not visited. Total number of prisoners during 1887, 4; average number, .7.

*Chippewa County* jail was not visited. The jail has been improved by the addition of a large cell 7x7 feet. The total number of prisoners during 1887, 8; average number, .3.

*Chisago County* has no jail.

*Clay County* jail was found well kept and more safe. Two additional cells, one of which is intended for a punishment cell, were added in 1887 at a cost of \$1,800. Total number of prisoners during 1887, 46; average number, 4.6.

*Cook County* has no jail.

*Cottonwood County* has no jail. Prisoners are boarded at Blue Earth county.

*Crow Wing County* jail was visited. There was but one prisoner who was waiting trial for manslaughter. The prisoner was found running loose on the street outside the jail. The jail was well kept. Total number of prisoners during 1888, 30; average number during 1887, 2.1.

*Dakota County* jail was visited. The cells had been neatly painted and were supplied with good straw beds, sheets and pillow cases. The prisoners were furnished with a supply of the *Youths Companion* and bibles. All prisoners are required to wear a jail suit during confinement. There were no rules requiring bathing, but a wooden tub is provided for that purpose. The jail seemed to be as well kept as was practicable. Total number of prisoners during 1887, 47; average number, 4.4.

*Dodge County* has no jail. Prisoners are boarded in Olmsted county jail.

*Douglas County* jail has been improved by providing double doors at the entrance to protect the jailor. The county commissioners had voted to exclude village prisoners. The window lattice of the cell for insane persons had been removed and not replaced, so that there was no place for the detention of insane persons or women. Total number of prisoners during 1887, 15; average number, 1.

*Faribault County* jail was found quite clean; the bedding very clean. The sewerage is defective and causes a nuisance. The cells are very dark and unsuitable for use. The cell room is so constructed that twelve good cells could be easily put in, providing separation and saving fuel. Total number of prisoners during 1887, 7; average number 0.6.

*Fillmore County* jail, when visited, was undergoing repairs. The jail was being ceiled with boiler iron and neatly painted. The jail was as well kept as was practicable. Total number of prisoners during 1887, 17; average number 2.

*Freeborn County* jail had contained only two prisoners during the six months preceding the visit. The jail was pretty clean, and the beds were supplied with sheets and pillow cases. The jail is old and can not be kept decent. The privy vault underneath is a nuisance. The cells are dark and the jail is very insecure. Prisoners have escaped by prying open the cage bars with a bed slat. Total number of prisoners during 1887, 28; average number, 3.6.

*Goodhue County* jail has proven thoroughly satisfactory, except the cement floors, which were put in against the advice of the state board of corrections and charities; the floors are cracking and are not wearing well. The jail is admirably well kept. Reading matter is supplied by the sheriff and the ladies of the Women's Christian Temperance Union. Each prisoner is kept in his own cell most of the time, but complete separation is not observed. The only attempt at escape has arisen from a failure to carry out fully the plan of separating prisoners. Total number of prisoners during 1887, 25; average, 4.5.

*Grant County* has no jail. Prisoners are kept in the Stevens county jail.

*Hennepin County* jail was found in fairly good condition. Bathing is required. The sewerage has been improved and cleanliness was the rule in the main cell room, but the condition of the Hennepin county jail continues to be disgraceful. Boys are herded with adult prisoners and thoroughly schooled in crime. All female prisoners are confined in one room where they are herded together like cattle, and there is no opportunity for separation of insane woman or young girls. The smaller cell room, which is used for short term prisoners and petty offenders, is literally "a den of thieves," where card playing and idleness prevail. Hennepin county should board her sentenced prisoners at the city work house. The small cell room on the north side should be divided into three separate stories, each containing nine cells of good size, which would enable the sheriff to classify his prisoners and keep a portion of them in individual cells. This improvement can be made at moderate cost, and will greatly mitigate the horrors of the jail. Total number of prisoners during 1887, 526; average number, 37.

*Houston County* jail was not visited. This jail cost \$30,000 and has accommodation for twenty prisoners. The largest number of prisoners at any one time in 1887 was two. The total number of prisoners, except insane persons, in 1887 was five, which illustrates the folly of building expensive jails in rural communities. Total number of prisoners during 1887, 10; average, 1.5.

*Isanti County* jail was condemned by the district judge, and has been disused for two years past. In the month of April, 1888, the county commissioners of Isanti county notified the board of corrections and charities of their intention to build a jail, and the following letter was addressed to the board:

OFFICE OF THE BOARD OF  
CORRECTIONS AND CHARITIES,  
ST. PAUL, MINN., May 2, 1888. }

*To the Honorable Board of County Commissioners of Isanti County,  
Cambridge, Minn.*

GENTLEMEN: I have received a letter from O. A. Hallin, Esq., for your board, dated April 23rd, and inclosing description of proposed cells, also a postal card stating that your board is to meet to adopt a jail plan on Friday the fourth inst. Mr. Hallin informed me that the cells are to be built by the Herzog Manufacturing Company. Accordingly I called, the day before yesterday, upon Mr. Herzog and conferred with him with reference to the proposed jail cells.

The law requires that all plans for county jails shall be submitted to the state board of corrections and charities for suggestions and criticism before final adoption by the county commissioners.

The time for the next regular meeting of our board will be the first Tuesday in July next. The secretary is not authorized to take final action in behalf of the board on any proposed plans.

I will, however, offer the following suggestions with reference to your proposed plans which will, I think, meet with the approval of the state board of corrections and charities.

*First*—It is evident that it would not be wise for you at the present time to build an expensive jail. A good county jail with sheriff's residence attached can not be built for less than \$10,000. I would suggest, therefore, that instead of steel cells you use iron cells, and that in case of having important or dangerous prisoners, you either employ, temporarily, a night watch or send such prisoners, as heretofore, to some other county. The interest on a \$10,000 jail will pay a good deal of transportation expense, for after you have built your jail you must still pay jailor's fees and boarding and heating expenses for the prisoners.

Under these circumstances, in my judgment, it would be wise for you to construct such a building as might subsequently be used for a village lockup. I understand that you propose building two cells, leaving room to build two more if desired, and that you intend to have a five foot corridor outside of the cells and next the walls of the building. I would therefore suggest that you put up a substantial frame building 20x32 feet with about 10 foot posts, and that the cell room be 18x23 feet inside measurment, and that



a partition be run through the building so that in cold weather it will not be necessary to heat the whole building for a single prisoner. If necessary the jailer can have a cot in the jailer's corridor. In ordinary weather the jailer or guard can sleep in the adjoining room as long as you have only two cells. I would suggest further that the cell doors be of solid plate iron and that there be no lattice on the cell next to the prisoners corridor; but on the other hand that the side of the cells adjoining the corridors and the front of the cells toward the windows (except about 18 inches in each cell) be composed of open lattice work which will give free circulation of air and light in each cell. The object of this is to make the cells light enough so that prisoners can be kept in them day and night, thus diminishing the chance of escape. The object of the prisoners' corridor is to give protection to officers in handling prisoners, but the corridor should not be used as a place for the prisoners in the day time.

I would by all means advise that you do away with the proposed water closets. Water closets in jails where there is not a good supply of water from public water works are a nuisance, without exception, so far as I know. Closets have been discarded on this account in Faribault, Kandiyohi, Stevens and Todd counties to my knowledge and have caused a great deal of trouble in other counties. When the closet gets out of order it needs a professional plumber to repair it, and it is very expensive to send to Minneapolis or St. Cloud for such a purpose. Instead of water closets I would suggest the use of patent odorless cell buckets which are now in use in several of the jails in the state and seem to give good satisfaction.

As your jail is to be placed in a wooden building it is of great importance that every precaution should be taken against fire. We roast to death, on an average, one prisoner a year in the lock-ups of Minnesota, and no precaution ought to be neglected. There should be a good brick chimney coming down within six feet of the floor and the stove should be so placed as not to be easily upset. If it were proposed to build a permanent jail I should feel that it ought on no account to be placed in a wooden building, and the board of corrections and charities would, I am sure, object decidedly to its being so placed, but the suggestions above mentioned are given on the theory that on account of your distance from the railroad and the small amount of funds available, you propose to make temporary provision. When you have agreed upon the general features of your plan, if you

will send it to this office I will submit the same to the state board of corrections and charities, as required by law, at the earliest possible date.

Yours respectfully,

H. H. HART,  
Secretary.

The suggestions contained in the letter were adopted by the board of commissioners and a contract made, subject to the approval of the board of corrections and charities, which was subsequently given at the August meeting of the board.

*Jackson County* has no jail. Prisoners are boarded in the Martin county jail.

*Kanabec County* put in two steel cells in 1886, each 7 x 10 feet. This is a wooden jail, exposed to danger from fire. Total number of prisoners during 1887, 11; average, 0.1.

*Kandiyohi County* jail was not visited. Total number of prisoners during 1887, 22; average, 2.1.

*Kittson County* has no jail, but the county commissioners are taking steps to build one. Prisoners have been boarded in the Polk county jail.

*Lac qui Parle County* built a jail and purchased a steel cell costing \$466 in 1887. The commissioners did not submit their plans to the state board of corrections and charities, and the jail has not yet been inspected.

*Lake County* built a jail in 1887, and purchased cell doors. No plans were submitted to this board and the jail has not yet been inspected.

*Le Sueur County* jail had been newly painted and plastered. It is badly built and was being moderately well kept. Total number of prisoners during 1887, 9; average, 0.6.

*Lincoln County* has no jail. Prisoners are boarded in the Brown county jail.

*Lyon County* has no jail. Prisoners are boarded in the Brown county jail.

*McLeod County* jail was not visited. Total number of prisoners during 1887, 9; average number 1.1.

*Marshall County* has a very poor wooden jail. The county commissioners made arrangements in 1887 to put in steel cells, but

on the advice of the board of corrections and charities they postponed action until such time as they shall be able to build a suitable jail. Prisoners were boarded in Polk county jail.

*Martin County* jail has been lined with three-eighths inch boiler iron, and storm windows have been placed upon all windows. Prisoners have escaped from being allowed to run outside the cells. The water closet does not work in winter. Only one prisoner was found in the jail, who reported himself well fed and cared for. Total number of prisoners during 1887, 3; average number, 0.25.

*Meeker County* jail was found well kept and prisoners well cared for. Total number of prisoners during 1887, 22; average number, 1.

*Mille Lacs County* submitted plans for a county jail in June, 1888. The secretary met a committee of the board of commissioners at Princeton, and advised them to abandon entirely, for the present, the building of a county jail, and acting upon this advice the building of a jail was postponed.

*Morrison County* built a new jail in 1888. The board of corrections and charities was not consulted with reference to the plans, as required by law. The jail has not yet been inspected. Total number of prisoners during 1887, 26; average number, 0.35.

*Mower County* jail was built in 1886. It consists of eight cells; four cells on each floor, entered from a middle corridor. The cell room floors are of stone flagging. The cells are divided by a middle corridor 5 feet wide, and there is a jailer's corridor next the wall 5 feet wide. The windows have round iron bars and hinged netting. There is a window 3x6 feet opposite each cell. There are bath tubs in the corridors. The cells are each 6½x8 feet, not very light. There is a water closet in each cell flushed from a tank overhead. The jailer reports them not very satisfactory. There is no ventilation from the cells except from the water closet. There should be ventilation into the chimney; the cost would be trifling. The cells are supplied with hammocks.

The jailer keeps prisoners that are considered dangerous by themselves, and allows those who are considered safe to run together in the corridors. Two prisoners escaped on account of this liberty Aug. 19, 1888. It was recommended that each prisoner be kept in his own cell, and that the jailer move his office into the corridor next winter. The jail was scrupulously neat and clean.

and well kept in every respect, except the association of prisoners. Total number of prisoners in 1887, 15; average number, 1.6.

*Murray County* has no jail. Prisoners are boarded in the Nobles county jail.

*Nicollet County* jail is well kept, but is insecure. The commissioners have talked of providing a separate cell for women, which could be done at small expense and should be done without delay. Total number of prisoners during 1887, 30 (of whom 3 were women); average number 0.25.

*Nobles County* jail has served for the counties of Nobles, Pipestone, Murray, and, at times, Rock and Jackson. The jail is well kept but is exposed to great danger from fire and can not be put in reasonable sanitary condition. It is unfit for use. Total number of prisoners during 1887, 19; average number, 1.7

*Norman County* has no jail. A wooden lockup in the village of Ada has been used as a jail to some extent. Prisoners are boarded in the jail of Clay county.

*Olmsted County* jail was built in 1887 and ranks with the Otter Tail and Goodhue county jails. In some respects it is better than either of these jails. The residence is a handsome, well built house. The jail has sixteen cells, each 7x8 feet, being the largest cells for individual prisoners in the state. The cell and corridor partitions are of plank covered with boiler iron. There is a separate lever for each cell and there are no water closets in the cells. The sixteen cells are in four separate compartments. There are no cells for women or insane persons in the sheriff's residence, the separate compartments in the jail proper affording ample facilities for such prisoners. The prisoners are kept strictly on the separate plan, and the jail is one of the best kept in the state. It was built at a cost complete, for the jail and residence, of about \$21,000, and it is an honor to the board of county commissioners and the architect. Total number of prisoners during 1887, 13; average number, 1.8.

*Otter Tail County* jail continues to receive the commendation of all visitors. It is admirably kept. In answer to the question, "What are your rules in reference to the association of prisoners with each other?" Sheriff Brandenburg says, "Always keep them separate. More convenient, better, and I like this way better the longer I do so." Total number of prisoners during 1887, 37; average number, 1.9.



*Pine County* has no jail. Prisoners are boarded in the Washington county jail.

*Pipestone County* has no jail. Prisoners are boarded in the Nobles county jail.

*Polk County* jail has long been a disgrace to the county. The county commissioners put three steel cells into the old wooden building. When visited the prisoners were found running loose in the corridor at 9 o'clock. Women were kept contrary to law. The jailor was warned by the secretary that he was in great danger of assault. At the meeting of the board of corrections and charities, Feb. 2, 1888, a communication was received from Frank Ives, county attorney of Polk county, and from Hon. Ira B. Mills, district judge, relating to the bad condition of the jail. The secretary was instructed to visit the jail and after investigation to make needed suggestions to the county attorney and the district judge. As a result of this investigation the following letter was addressed to the district judge and as a consequence the jail was disused from May until October, 1888. The sheriff writes that the jail has been repaired but it has not since been inspected.

OFFICE OF STATE BOARD OF  
CORRECTIONS AND CHARITIES,  
ST. PAUL, MINN., Feb. 18, 1888. }

*Hon. Ira B. Mills, District Judge, Crookston Minn.,*

DEAR SIR: Your letter to Gov. McGill respecting the Polk county jail was referred by him to the board of corrections and charities.

At the quarterly meeting of the board, held February 2d, I was instructed to investigate the condition of the Polk county jail and to report the result of my investigation to you with such suggestions as might seem proper under the circumstances. The jail is located in the first story of a wooden building, the second story being occupied by the sheriff's family. The cell room is about 20x26 feet, constructed of pine scantling 2x6 inches, spiked together. At the rear of the room is a privy seat opening into a vault under the building. Even at the present time the stench from the vault is very offensive, and in warm weather it is almost insupportable.

The accommodations for prisoners consist of two steel cells, each 6½x8 feet by 7 feet high. These cells open into a prison-

er's corridor about 4x13 feet. Each cell is intended to accommodate four prisoners, but there has been as many as eleven prisoners at a time. Each cell is supplied with four hammocks, an iron bucket and a ventilator which does not ventilate. Each cell has a door of lattice work opening into the prisoners' corridor, and a window of about the same size as the door, but the cells are so placed that they receive very little light and are so dark that the objects in the cells can not be distinguished from outside. The prisoners' corridor is better lighted but very imperfectly so. The result is that the sheriff is unwilling to confine prisoners in the cage and is accustomed to give prisoners the liberty of the cell room. This practice has resulted in escape at two different times during the past year. It exposes the jailer to constant danger of assault.

The jail is a fire trap. Should a fire get well started at the entrance it would be difficult to save the sheriff's family, and the prisoners would probably be roasted in their cells. This danger is a real one and has been proven by experience in Breckenridge, Detroit, Pine City, Tower, Willmar and Ortonville. Five prisoners have been cremated in Minnesota in the past five years.

The crevices between the scantlings, of which the cell room is built, afford a refuge for hosts of vermin which can not be destroyed. It is impossible to keep the place clean, because filth and dust accumulate in these crevices.

The jail is therefore unfit for use, because it exposes the officers in charge to assault; it exposes the prisoners to danger from fire, and its sanitary condition is so bad that it is likely to breed disease both for the prisoners and the family living in the building.

The jail is equally objectionable from a moral point of view. There is no means of separating prisoners. The law forbids keeping men and women in the same room, but the sheriff reports that women are kept in the cell room by day and locked in a cell by night.

The attorney general rendered an opinion in 1883 that such confinement was contrary to the statute. Insane persons, witnesses and children are compelled to associate with criminals, and those who are young and inexperienced are exposed to the influence of hardened criminals. The result is that the Polk county jail is a source of crime instead of a preventive of it.

The condition of the jail is a disgrace to the county of Polk

and to the State of Minnesota. It is, in fact, one of the worst jails in the state. I learn from the county attorney, county auditor and county sheriff that the condition of the jail has been brought to the attention of the county commissioners repeatedly by the action of the grand jury and in other ways, but that the said county commissioners have persistently refused to take any action whatever in the premises.

I would therefore respectfully recommend that the use of the Polk county jail be discontinued in accordance with chapter 120, sec. 3, general statutes of Minnesota, and that prisoners be sent to the jail of Otter Tail county, which is the nearest county having a sufficient jail. Very respectfully,

Your obedient servant,

H. H. HART,

*Secretary State Board of Corrections and Charities.*

Total number of prisoners during the year 1887, 31; average number, 3.1.

*Pope County* jail has been disused for several years, having been condemned by one grand jury after another. Prisoners are boarded in Stevens county.

*Ramsey County* jail has been a stench in the nostrils of the community for a series of years. The jail is at best a public nuisance whose evils can only be mitigated. In the month of November, 1887, the secretary of this board made complaint against two of the jailors for misconduct in the treatment of prisoners, but the case was thrown out of court for lack of evidence. A suit for damages for false imprisonment and defamation of character was instituted by one of the jailers, but the presiding judge, after hearing the evidence for the plaintiff, directed the jury to bring in a verdict for the defendant without hearing any further evidence.

In 1888 the board of county commissioners caused a room to be fitted up with four cells for the separate detention of women, and appointed a matron to have exclusive charge of that department. This has mitigated one of the worst evils connected with the jail, but the condition of juvenile prisoners, insane persons and witnesses continues to be disgraceful. The only remedy lies in the building of a new jail.

Considerable discussion has been had as to the proper location and plan for a new jail. A commission was appointed to procure a site for a jail building, and the committee decided upon a location on the corner of Cedar and Fifth streets, opposite the new



court house, but the city council refused to ratify the selection. In my judgment it would be unwise for the county to buy a lot and build a jail in the immediate proximity of the court house. The expense of purchasing a lot would be very large, and the location is an undesirable one, both for the jail itself and for the adjoining business property. The height of the surrounding buildings will make it difficult to secure proper light and air. Should a jail be built on a business corner the best plan would probably be to use the first floor for offices, the second floor for the jailer's residence, and locate the jail cells in the upper part of the building. The jail would necessarily be entirely fire-proof in any case and such a location would remove the prisoners from proximity to the street, minimize the liability to escape, and give the best opportunity for securing light and air.

I am of the opinion, however, that the better plan would be to secure a site several blocks away from the county court house, either on the face of the bluff or at one side of the business centre. Should the jail be built on the face of the bluff, it could be constructed of brick at the least possible cost. The jail fronting towards the city could be one or two stories high, and could be handsomely and appropriately constructed; the jail structure could extend down the bluff as far as might be desirable, on a plan similar to that of the West Publishing Company. Escapes would be difficult, light and air would be abundant, and it would be impossible for any one to shut them off. Should a lot be selected at one side of the business centre it ought to be large enough to segregate the jail building and afford a little breathing space about it. Total number of prisoners during 1887, 671; average number, 36.

*Redwood County* has no jail. Prisoners are boarded in the jail of Brown county.

*Renville County* jail was not visited. It is located in the lower story of the court house and is unfit for use. The sheriff says, in reply to the question: "What are your rules with reference to the association of prisoners with each other?" "The jail is too small to have any rules, and if you had, how could they be enforced?" Total number of prisoners during 1887, 7; average number, 1.5.

*Rice County* jail was found in as good condition as practicable, but it is a dilapidated structure, insecure and unwholesome. The county needs a new jail. Total number of prisoners during 1887, 29; average number, 1.7.



*Rock County* built a new court house in 1888, and located the county jail and sheriff's residence in the basement of the same. The court house is a beautiful and commodious building, but the jail will prove a nuisance until it is removed. The jail consists of a dark cell for women or insane persons, partially lighted by a window which looks into the sheriff's office, and a cell room containing a block of steel cells, built by the Diebold Safe & Lock Company. The cells are imperfectly lighted and are of the objectionable cage pattern which has been so often criticised. While the rest of the court house is well ventilated, there was no provision made in the plans for ventilating the jail, which needed it most of all.

The iron and steel work for the jail cost about \$3,000. Rock county has had no jail hitherto, prisoners being boarded in Noble county.

*St. Louis County* jail was found reasonably clean. A considerable number of city prisoners are kept in the jail. These city prisoners stay for a brief time and it is difficult, if not impossible to keep them clean and free from vermin. The county prisoners are required to bathe weekly and are kept clean.

Total number of county prisoners during 1887, 533.

The jail has inadequate accommodations for 24 prisoners but in 1887 the number of prisoners ran as high as 47 at one time, and in 1888 it reached 60.

The commissioners have adopted admirable plans for a new county jail which have been approved by the state board of corrections and charities, but the site for the jail has not yet been settled, and in the meantime great inhumanity is unavoidable.

*Scott County* jail was not visited. The total number of prisoners in 1887 was 17, average number, .2.

*Sherburne County* has no jail. Prisoners are boarded in the Hennepin county jail.

*Sibley County* jail has been sometimes empty for months in succession. It is a primitive wooden structure, insecure and ill-adapted to the purpose. At the last visit of inspection the secretary was met by a young man at the door who informed him that the sheriff was away from home, but kindly offered to exhibit the institution. Finding the jail empty the secretary remarked, "The sheriff has no prisoners, I observe." "Oh, no," said the young man, "he has one." "Where is he?" "I am

the prisoner," was the reply; and it appeared that the prisoner was in sole charge of the jail and sheriff's residence. The jail serves also as a laundry for the sheriff's family. Total number of prisoners in 1887 was 6, average number .6.

*Stearns County* jail is an old, badly constructed building and would have become a public nuisance years ago except for the efficiency of the sheriff,

MATHIAS MICKLEY.

Sheriff Mickley was sheriff of Stearns county for a period of over thirty years. He was appointed deputy sheriff in 1856, elected sheriff in 1858 and was sheriff continuously from that time until his death, except during three and a half years, during two and a half of which he was in the United States army. He was one of the most efficient prison officers in the state; quiet, reasonable but firm. He had extraordinary tact in dealing with prisoners. He had no printed rules and only two verbal ones, namely: "Behave, keep clean." He told prisoners that he expected them to behave like men and he seldom had any serious trouble with them. Although prisoners had the liberty of the corridor, the jail was kept scrupulously clean and the white walls free from pencil marks. Sheriff Mickley would have been a valuable officer in a large institution. It is to be regretted that comparatively few officers have the ability or the desire to maintain such a standard of cleanliness and good order as he preserved in the Stearns county jail for many years. Sheriff Mickley died in 1888, leaving a notable vacancy in the ranks of sheriffs of the state. Total number of prisoners in 1887 was 97; average number, 6.3.

*Steele County* jail was found empty, swept and garnished. The jail is well kept but it is badly planned with reference to the separation of prisoners. The cell for women opens by a window into the jailor's office, and the mens' department contains a steel cage of inferior construction. Total number of prisoners in 1887 was 14; average number, .6.

*Stevens County* jail was found well kept. Contrary to the general rule, prisoners are not kept entirely in idleness, but a portion of them are employed in sawing wood and cleaning up around the building. In reply to the question, "What are your rules with reference to the association of prisoners with each other?" the sheriff said: "Women and children entirely sepa-

rate from the men. The men have to associate together, whether in for punishment, as witnesses, or for safe keeping." The total number of prisoners in 1887 was 20; average number, 1.3.

*Swift County* jail is a wooden jail unfit for use. The sheriff says, in answer to the question, "What number of prisoners can be accommodated?" "Possibly four, but would say none." The jail has been repeatedly condemned by the grand jury. There is no suitable provision for separating prisoners. The total number of prisoners during 1887 was 3; average number, .2.

*Todd County* jail was not visited. The total number of prisoners during 1887 was 10; average number 1.2.

*Traverse County* has no jail. Prisoners are boarded in Stevens county jail.

*Wabasha County* jail was found very clean. There were clean pillow cases on the beds but no sheets. The cage is very dark. The furnace has long been disused as is the general case in jails. There is a cell for women above the kitchen about 15x16 feet, neatly kept and very clean. This jail is one of the best old jails in the state, though not ideal by any means. The sheriff, in answer to the question, "What reading matter is allowed prisoners?" said: "Bibles, newspapers, history." "What are your rules with reference to the association of prisoners with each other?" answer, "Kindness towards each other." Total number of prisoners during 1887 was 24; average number, 1.5.

*Wadena County* has no jail. Prisoners are boarded in the Otter Tail county.

*Waseca County* jail was not visited. Total number of prisoners during 1887 was 19; average number, .8.

*Washington County* jail has improved very much over its former condition. The great objection to the jail is the fact that there is no proper separation between the sexes, both sexes being confined in the same room though in different corridors. Total number of prisoners in 1887 was 30; average number, 2.3.

*Watonwan County* has no jail. Prisoners are boarded in the Blue Earth county jail.

*Wilkin County* jail was not visited. The jail is in the basement of the court house. In 1887 the windows were bricked up half way to the top, and three second hand cells were purchased at a cost of six hundred dollars. There are now five cells, each 5x8

feet. There is no provision for separation of prisoners. The sheriff says, in his official report, "the prisoners are herded together like cattle."

*Winona County* jail was found very clean and neat, bedding clean, each bed being supplied with a sheet and a pillow case. This jail has a separate cell for women in the sheriff's residence, but the secretary was informed that a female prisoner had been kept all winter in the upper corridor of the main cell room, which is contrary to law. The deputy sheriff said, "When we get a respectable woman we keep her in the womens' cell. This was a colored woman." Attention has been previously called to this practice in the Winona county jail; it should be stopped. The jail is supplied with good reading matter and no police gazettes. Total number of prisoners during 1887 was 66; average number 7.8.

*Wright County* has no jail. Prisoners are kept in the Hennepin county jail. The commissioners talk of building a jail.

*Yellow Medicine County* jail was not visited. Total number of prisoners during 1887 was 2; average number, .3.



## CITY AND VILLAGE LOCKUPS.

There has been little change in the condition of city and village lockups since the last biennial report, except in the cities of Minneapolis and Stillwater. In Minneapolis a new lockup has been built, consisting of a two story building with asphalt floors in cell rooms, and three distinct compartments. Each cell contains a water closet. The lockup is badly lighted and imperfectly ventilated, a difficulty which is aggravated by the presence of the patrol wagon stables in the building; but it is a great improvement upon the old lockup, and it is capable of being kept clean.

The original plans for this lockup were submitted to the state board of corrections and charities, and the following communications were addressed to the board of police commissioners with reference to the said plans:

STATE OF MINNESOTA, OFFICE OF THE }  
BOARD OF CORRECTIONS AND CHARITIES, }  
SAINT. PAUL, MINN., Sept. 13, 1887. }

*To the Honorable the Board of Police Commissioners, Minneapolis, Minn.,*

GENTLEMEN: I have examined the plan of a proposed building to be used temporarily as a lockup and central police station for the city of Minneapolis.

A committee of the state board of corrections and charities will meet at Stillwater on Thursday, September 15th, at which time I shall offer the following suggestions with reference to the proposed plan:

*First*—It should be understood that the proposed building, being designed ultimately to serve a different purpose, will not be such a building as the board of corrections and charities would approve for permanent use as a city prison.

*Second*—The plan contemplates four windows on one side the building and five on the other. I would suggest that there be six windows on each side, in order to secure the largest possible amount of light as well as free circulation of air in warm weather.

*Third*—In the plan, a fire escape is marked at a window close

to the stairway leading from the second to the first story. The fire escape should be located as far as possible from said stairway, because, in case of a fire blocking the stairway, it would also block the approach to the fire escape. I should prefer two separate staircases in different parts of the building, but if this is not practicable, a fire escape should be provided at a window in the men's department and one at a window in the women's department, as far as possible from the staircase. In said window the iron grating should be placed on hinges and secured by a suitable lock.

*Fourth*—With reference to the floors in the cell room and the patrol wagon room, I would suggest that the joists and the bottom of the floor be left exposed to view and the lumber surfaced so as to admit of painting the same. (Paint should be used instead of whitewash, because the latter scales off and affords a refuge for vermin.) I would suggest further that a coat of three-quarters of an inch or an inch of asphalt be laid down upon the wooden floor. This coating will be impervious to water, readily cleansed, and non-absorbent of filth, and affording no refuge for vermin. I have seen such a floor at Dr. Kerlin's institution at Elwyn, Penn., where an asphalt floor was laid over an old wooden floor with satisfaction and at a moderate cost. This construction of floor will permit of sewer and water pipes being put through at any point and carried overhead in the room below in full view, affording ready opportunity for repairs and changes.

Instead of the brick smoke stack with brick ventilating flues indicated on the plan, I would suggest that an iron smoke stack be placed in a large brick ventilating flue, with provision for connection on the several floors for ventilating purposes.

I would suggest that the glass in the lower sash of the window on the ground floor be of such a character as not to be transparent.

The above suggestions relate to the building as thus planned by the architect, and are offered by me subject to the approval of the state board of correction and charities, but I anticipate that they will receive their concurrence.

When your honorable body is ready to make plans for the cells, sewerage, ventilation, etc., the board of corrections and charities will have some additional suggestions to offer.

All of which is respectfully submitted.

H. H. HART,  
*Secretary.*

STATE OF MINNESOTA, OFFICE OF THE }  
 BOARD OF CORRECTIONS AND CHARITIES, }  
 SAINT PAUL, MINN., Dec. 15, 1887.

*To the Honorable Police Commission, Minneapolis, Minn.,*

GENTLEMEN: I saw yesterday, at the office of Mr. Orff, the revised plans for the city lockup. In general it appears that the lockup will be as good as is practicable under the conditions. If the building had been a permanent one the entire plan should have been different.

I desire to enter a protest with reference to certain points. First—The ventilation provided for in the proposed plan will be entirely inadequate, especially in summer. Two flues each 20x24 inches can only make a beginning to the necessary ventilation. Window ventilation must necessarily be imperfect owing to the fact that there can not be free circulation of air. Ventilation by a small fan would be the best plan. Next to fan ventilation a limited amount of "indirect radiation," the fresh air to be drawn from the top of the building, would be very desirable. If indirect radiation is considered impracticable, ventilation of the large cell room should be had through an iron stack twenty or twenty-four inches in diameter, heated by a small hot air furnace. Such a stack could be located so as to interfere as little as possible with the large hall. Second—The window gratings to one window in each cell room remote from the stair case should be placed on hinges and locked on the outside by padlock. There is but one staircase to the building, and in case of fire cutting off the staircase, it would be impracticable to rescue prisoners. Only a few days ago several prisoners were burnt in a lockup in another state and similar accidents have happened in three or four different lockups in Minnesota. I am sure that your board will be unwilling to take the responsibility of constructing a building so that escape would be impossible in case of fire.

I regret that your honorable board have not adopted the plan of placing cells back to back with a middle corridor, the back of cells and cell doors to be solid. In the main cell room you would lose five cells, but the change would do away with prisoners seeing each other when taken in and out.

Please accept thanks for the courtesies extended by your board and your architect, Mr. Orff.

I am respectfully, your obedient servant,

H. H. HART,

*Secretary.*

In accordance with the suggestions offered, a separate exit was provided from the second floor, and a good fire escape was provided. A corrugated iron ceiling was provided for a part of the lower floor, and asphalt floors were laid in the cell room.

A matron was employed for a short time in the lockup, but she was discharged some time ago, and a new one has not been employed. There is great need of a matron in this lockup.

The Stillwater lockup, in the first story of the city hall building, while much better than the average lockup, has been regarded as a public nuisance for years, and a detached lockup building has been constructed which is practically fireproof, has a grouted floor, and is a convenient and suitable building, except that there are inadequate accommodations for female prisoners.

Steps have been taken to build a new lockup at Sauk Centre. The old lockup is so abominable that on two different occasions the secretary of the board found the village marshal guarding prisoners on the street because he was unwilling to keep them in the lockup. On the second occasion the officer stated that at night he put his prisoner to bed in the upper room of the hotel, and took away his clothing to prevent his escape.

The following lockups reported prisoners serving sentence in the lockup during the year:

Albert Lea, 18; Alexandria, 5; Anoka, 16; Austin, 64; Blooming Prairie, 1; Brainerd, 72; Browns Valley, 1; Cokato, 1; Fari-bault, 23; Fergus Falls, 60; Hastings, 70; Lake Crystal, 1; Marine Mills, 1; Mazeppa, 3; Moorhead, 6; Morris, 10; Pine City, 1; Rochester, 27; Winona, 4; Zumbrota, 4.

In general, municipal prisoners sentenced to imprisonment are kept in the county jails. Municipal authorities show an encouraging disposition to remedy the existing evils as far as possible.

Table "BB" describes the city and village lockups of the State.

Table "CC" shows the movement of population in the lockups for the year 1887.

Table "DD" is a census of the prisoners in confinement in the State of Minnesota July 31, 1888, exclusive of 231 inmates of the state reform school, and 6 inmates of the House of the Good Shepherd.





TABLE "BB" — Continued.

LOCATION.	Material of Lockup.	Date of Erection.	Cost of Building.	Number of Cells.	Size of Cells.	Size of Outer Room.	Capacity of Lock-up.	Largest No. of In-mates at one time.	Sleeping Accommodations.	Bedding Furnished.	How Often Bedding Washed.	How Often Lockup Scrubbed.
Detroit.....	Wood.....	1883	600	4	4x 8	12x16	4	2	Floor.....	Blankets.....	.....	.....
Dexter.....	Wood.....	1877	30	2	6x 8	8x 6	6	2	Floor.....	None.....	.....	Once a year.
Dodge Centre.....	Wood.....	1876	300	1	5x 7	12x16	6	2	Hammock.....	Blankets and quilts.....	When necessary.	Tri-weekly.
Duluth.....	Stone and wood.....	1886	2,000	7	6x10	16x30	7	10	Bunks.....	None.....	When necessary.	When necessary.
Dundas.....	Wood.....	1879	75	1	10x16	16x24	1	1	Floor.....	Blankets and quilts.....	Frequently.	Frequent.
East Grand Forks.....	Wood.....	1883	600	3	6x10	20x30	6	13	Floor.....	Blankets.....	Yearly.	Semi-annually.
Easton.....	Wood.....	1880	75	2	8x10	8x10	2	2	Bunks.....	Blankets.....	When necessary.	When necessary.
Elizabeth.....	Wood and iron.....	1882	250	2	7x10	8x14	4	2	Cots.....	Blankets and quilts.....	When necessary.	When necessary.
Elk River.....	Wood.....	1881	200	2	6x10	4x12	8	2	Bedsteads.....	None.....	.....	Once a month.
Elyrian.....	Wood.....	1884	133	3	4x12	12x16	6	1	Bedsteads.....	Blankets.....	Once a month.	When necessary.
Evansville.....	Wood.....	1884	425	2	8x 8	16x16	2	7	Bunks.....	Blankets.....	When necessary.	Once a month.
Evota.....	Wood.....	1873	250	2	8x10	14x30	2	1	Bunks.....	Blankets and quilts.....	When necessary.	Once a month.
Elsworth.....	Wood and iron.....	1887	350	2	8x 8	16x16	4	7	Cots.....	Blankets and quilts.....	When necessary.	Once a month.
Excelsior a.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Faribault.....	Iron and brick.....	1887	950	3	4x 7	10x21	6	4	Cots.....	Blankets.....	Monthly.	Weekly.
Farmington.....	Wood.....	1877	500	2	8x10	18x16	2	1	Bunks.....	Blankets.....	Once a year.	Once a year.
Fergus Falls.....	Iron.....	.....	.....	2	8x12	14x40	8	6	Floor.....	Blankets and quilts.....	Twice a year.	Twice a month.
Fishers Landing.....	Wood.....	1881	100	2	6x 8	8x12	6	4	Floor.....	Blankets and quilts.....	4 times a year.	4 times a year.
Fountain.....	Wood.....	1877	50	1	6x10	6x10	2	1	Bedsteads.....	Blankets and quilts.....	Once a year.	When necessary.
Fulda.....	Wood.....	1886	300	2	8x 8	14x16	8	2	Cots.....	Blankets.....	Once a month.	Once a month.
Gaylord.....	Wood.....	1883	142	2	8x 8	5 $\frac{1}{2}$ x 8	6	1	Bedsteads.....	Quilts.....	Once a year.	Twice a year.
Glyndon.....	Wood.....	1884	250	2	8x 8	10x24	12	6	Floor.....	Blankets.....	Every 6 months.	Once a year.
Graceville.....	Wood.....	1883	300	2	6x 8	6x12	2	2	Floor.....	Blankets and quilts.....	.....	Semi-annually.
Grand Meadow.....	Wood.....	1875	.....	2	7x 7	7x10	4	4	Floor.....	Blankets.....	.....	Once a year.
Green Isle.....	Wood.....	1886	200	4	6x 8	10x20	4	2	Floor.....	Blankets.....	.....	Twice a year.
Grove City.....	Wood.....	1878	175	2	6x 8	12x 8	2	2	Bunks.....	Robes.....	Twice a year.	Twice a week.
Hastings.....	Stone and brick.....	1884	3,300	7	5x 8	20x35	7	5	Planks.....	Blankets.....	Entirely renewed	.....
Hawley.....	.....	1882	150	2	6x 7	8x12	4	1	Bedsteads.....	Quilts.....	.....	.....
Hector.....	Wood.....	1888	150	3	6x 8	5x 8	4	3	Bunks.....	Blankets.....	Once a month.	Once a month.
Hennings.....	Wood and iron.....	1887	173	2	6x 7	6x12	6	3	Bunks.....	Blankets and quilts.....	.....	When necessary.
Herman.....	Wood.....	1878	200	4	4x10	6x14	4	4	Floor.....	Blankets and quilts.....	Twice a year.	When necessary.
Heron Lake.....	Wood and iron.....	1880	150	2	4x10	12x 6	4	1	Bunks.....	Blankets.....	When necessary.	When necessary.
Hogan.....	Stone.....	1873	.....	2	8x10	20x30	4	1	Bunks.....	Blankets.....	When necessary.	When necessary.

Houston.....	1876	1000	1	6x 6	7x 8	2	1	Bunks.....	Blankets.....	When used.....	Once a year.
Hutchinson.....	1886	400	1	8x10	6x 6	2	4	Bedsteads.....	Blankets and quilts.....	When necessary.....	When necessary.
Jackson.....	1885	200	2	8x10				Bunk.....	Blankets and quilts.....	When necessary.....	When necessary.
Janesville.....			1	6x14			1	Floor.....	Quilts.....	When necessary.....	Twice a year.
Jordan.....	1875	250	2	8x10	6x14	2	1	Bedsteads.....	Blankets and quilts.....	Can't tell.....	
Kellogg.....	1875	300	4	7x13	8x16	4	4	None.....	Blankets.....	Once a year.....	Once a year.
Kenyon.....	1875	300	3	5x 9	8x16	6	1	Floor.....	Blankets and quilts.....	Twice a year.....	Twice a year.
Kenny.....	1885	300	3	6x10	10x14	6	1	Bedstead.....	Blankets and quilts.....	Once a month.....	Once a month.
Kilkenny.....	1875	300	3	6x10	10x14	12	9	Floor and bunks.....	Blankets and quilts.....	When necessary.....	When necessary.
Lake City.....	1885	400	2	7x12	8x16	2	1	Bunk.....	Blankets.....	Quarterly.....	When used.
Lake Park.....	1872	150	2	7x 8	8x16	2	2	Bedsteads.....	Blankets.....	Once a year.....	When necessary.
Lake Park.....	1881		2	4x 6	8x13	4	3	Bunks.....	Blankets.....	Never.....	Twice a year.
Lakeville.....	1879	400	2	8x 6	12x12						
Lamberton.....											
Lanesboro.....	1886	2, 200	2	8x 4	14x14	2	2	Bedsteads.....	Blankets and quilts.....	Once a year.....	Twice a year.
Le Roy.....	1877	100	2	8x10	8x11	4	2	Floor.....	Blankets and quilts.....	Once a year.....	Twice a year.
Le Sueur.....	1872	75	3	6x 8	8x10	3	6	Bunks.....	Blankets.....	When necessary.....	Twice a year.
Lewiston.....	1875	200	3	6x12	16x18	3	3	Mattresses.....	Blankets.....	When necessary.....	Twice a year.
Litchfield.....	1886		2	7x 9	24x40	6	2	Hammocks.....	Blankets.....	Once a year.....	Twice a year.
Lyle.....	1875	350	2	8x10	8x16	6	4	Beds.....	Blankets.....	Once a month.....	Once a month.
Luverne.....										Once a day.....	Once a day.
Madella.....	1875	250	3	6x 8	8x12	6	4	Floor.....	Blankets.....	Once a year.....	Once a year.
Mankato.....	1885	400	3	8x10	22x45	5	10	Iron beds.....	Blankets and quilts.....	When necessary.....	Twice a year.
Manitouville.....	1865	150	1	12x14		4		Bunks.....	Blankets.....	Twice a year.....	Twice a year.
Mapleton.....	1880	150	2	6x 8	6x12	6	4	Bunks.....	Blankets.....	Once a year.....	Once a year.
Marine Mills.....	1872	2, 000	1	6x10	24x30	2	3	Beds.....	Blankets and quilts.....	When necessary.....	Twice a year.
Mazeppa.....	1875	300	3	5x10	8x10	3	3	Beds.....	Blankets and quilts.....	Once a year.....	Once a year.
Melrose.....	1882	125	1	12x12		1	1	Bunks.....	Blankets.....	When necessary.....	When necessary.
Minneapolis.....										Daily.....	Daily.
Central Station.....	1887	23, 000	50	6½x 4		50		Bunks.....	None.....	Daily.....	Daily.
Second Precinct.....										Daily.....	Daily.
Third Precinct.....	1884		4	5x10	4x30	4	14	Bunks.....	None.....	Never.....	Never.
Fourth Precinct.....	1884		3	5x 7	20x21	6	16	Bunks.....	Blankets.....	Once a year.....	Once a year.
Minnesota.....	1876	200	5	10x10	8x18	8	9	Bunks.....	Quilts.....	Once a month.....	Once a month.
Minneca.....	1883	200	2	4x 6	6x 6	3			Blankets and quilts.....	When necessary.....	When necessary.
Montgomery.....	1880	200	2	8x10	8x16	6	6	Floor.....	Blankets.....	Once in 2 weeks.....	Once a week.
Monticello.....	1883	580	2	8x10	8x10	6	4	Floor.....	Blankets.....	Once a year.....	Once a year.
Moorhead.....	1874	1, 200	6	8x 8	8x16	12	7	Bunks.....	Quilts.....	Never.....	Never.
Morris.....	1879	200	3	4½x 8		3	8	Floor and bunk.....	Blankets and quilts.....	When it rains.....	When it rains.
Morton.....	1887	335	3	8x 8	12x16	3	1	Bedsteads.....	Quilts and blankets.....	Once a year.....	Once a year.
Morristown.....	1876	100	2	4x 8	5x16	4	4	Iron bedsteads.....	Blankets.....	3 times a year.....	When necessary.
New Prague.....	1875	500	2½	8x12	6x12	4	2	Bunks.....	Blankets.....	Twice a year.....	Twice a year.
New Richmond.....	1878	125	2	6x 8	16x18	6	5	Iron bunks.....	Quilts and blankets.....	Never.....	Never.
Northfield.....	1883		2	6x 6	10x14	4	4	Wooden bunks.....	None.....	Every 2 weeks.....	Every 2 weeks.
Northern Pacific Jctn.....	1885	300	2	7x 8	10x14	4	4	None.....	Blankets.....	When necessary.....	When necessary.
Olivia.....	1885	450	2	5x10	14x16	3					
Ortonville.....	1881	50	2	6x 8							
Oskosh.....											
Ossago.....	1876	350	1	10x14	10x14	2	2	Beds.....	Blankets.....	When necessary.....	When necessary.



TABLE "BB" — Continued.

LOCATION.	Material of Lockup.	Date of Erection.	Cost of Building.	Number of Cells.	Size of Cells.	Size of Outer Room.	Capacity of Lock-up.	Largest No. of Inmates at one time.	Sleeping Accommodations.	Bedding Furnished.	How Often Bedding Washed.	How Often Lockup Scrubbed.
Owatonna.	Wood	1871	250	2	5x7½	6x12	4	4	Bunks.	Blankets	When necessary.	Once a month.
Pelican Rapids.	Wood	1883	300	2	8x12	6x12	4	2	Floor.	Mattress.	Not very often.	When necessary.
Perham, summer.	Wood	1882	100	2	8x10	10x14	4	6	Bunks.	Quilts and blankets	Twice a year.	Once a month.
Perham, winter.	Wood	1888	.....	1	.....	40x50	2	2	Bunks.	Blankets and quilts	When necessary.	When dirty.
Pine City.	Wood	1884	650	2	6x 8	14x16	2	2	Wooden bedsteads.	Quilts and blankets	Fortnightly.	When necessary.
Pine Island.	Stone.	1885	250	2	4x 7	5x 9	2	1	Bunk.	Quilt.	.....	Semi-annually.
Plainview.	Wood	1875	75	1	16x20	20x24	6	6	.....	None.	.....	.....
Reed's Landing.	Wood	1870	200	3	6x 8	6x10	1	1	Bunks.	Blankets	When necessary.	Once a month.
Red Lake Falls.	Wood	1882	300	1	8x10	6x10	2	2	Bunks.	Blankets	When necessary.	Once a month.
Red Wing.	Stone.	1870	800	4	6x 8	12x30	4	6	Bunks.	Blankets	3 times a year.	Quarterly.
Redwood Falls.	Wood	1878	300	1	12x14	14x 8	2	2	Wooden beds.	Blankets	When necessary.	Once a month.
Rochester.	Brick and stone	1885	3,000	4	4x 7	18x20	20	8	.....	Blankets	Every 2 weeks.	Once a week.
Rosemount.	Wood	1874	350	2	6x10	20x24	4	1	Floor or bunk.	Blankets	.....	Once a year.
Rothsay.	Wood	1886	300	3	6x10	4x10	9	4	Bunks.	Quilts.	.....	.....
Rush City.	Lockup burned	1878	87	2	4x7, 8x7	9x11	3	1	Floor.	Blankets	Never.	Never.
St. Charles.	Stone and brick	1881	2,900	3	6x10	10x18	3	1	.....	Bunks.	.....	.....
St. Hilaire.	Wood	1885	250	3	.....	.....	.....	.....	.....	.....	.....	.....
St. James.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. Paul.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Central Station.	Wood & stone.	1857	.....	10	4x10	10x40	36	35	Bunks.	Quilts.	Bi-monthly.	Every day.
Margaret street.	Brick and iron	1886	3,500	5	5x 7	2½x15	5	10	Iron bedsteads	Blankets and quilts	Weekly	Daily.
Ducas street.	Brick and iron	1886	4,500	5	4x 8	16x16	5	15	Iron bedsteads.	Blankets	Weekly	Daily.
Rondo street.	Brick and iron	1887	3,200	5	5x 7	3x30	5	8	Iron beds.	Blankets	Weekly	Daily.
Union Park.	Brick and iron	1886	3,500	5	5x 7	5x14	5	14	Iron beds.	Blankets	When needed.	Weekly.
St. Vincent.	Wood	1885	3,350	2	8x10	12x18	3	2	Bunks.	Blankets and quilts	Semi-annually.	Monthly.
Sacred Heart.	Wood	1885	100	2	6x 8	4x12	4	12	Wooden beds.	Blankets and robes	When used.	When necessary.
Sauk Centre.	Wood	1875	150	2	.....	12x12	2	2	Wooden beds	Blankets and quilts	Once a year.	4 times a year.
Sauk Rapids.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Shakopee.	Brick	1884	3,000	1	9x49	9x20	9	9	Bunks.	Blankets and quilts	New.	Never yet.
Sherburne.	Wood	1884	200	2	6x 6	6x12	2	4	Bunks.	Blankets	Never yet.	Once a year.
Sleepy Eye.	Wood	1879	284	2	6½x 7	7x15	4	2	Wire mattresses.	Blankets	Once a year.	Twice a year.
Springfield.	Wood	1882	380	2	8x 6	12x14	4	1	Iron bedsteads.	Blankets and quilts	Yearly	Twice a year.
Spring Valley.	Wood	1878	100	2	6x 5	7x12	4	3	Bunks.	Blankets and quilts	Once a year.	4 times a year.



Starbuck.....	1883	200	2	6x 6	8x16	2	2	Wooden beds.....	Blankets and quilts	When soiled.....	When soiled.
Stillwater <sup>a</sup> .....	1886	400	4	8x 8	8x16	6	1	Bunks.....	Blankets.....	When necessary..	When necessary.
Taylor Falls.....	1885	500	4	8x 8	8x20	4	8	Bunks.....	Blankets and quilts	When necessary..	When necessary.
Tracy.....	1885	500	4	d.)						3 times a year....	Quarterly.
Verndale.....	1878	500	3	7x 8	10x24	6	4	Bunks and floor.....	Blankets.....	Yearly.....	Once a year.
Wabasha.....	1884	360	2	8x10	16x 8	4	1	Wooden beds.....	Blankets.....	Half yearly.....	Half yearly.
Waconia.....	1881	450	4	10x10	12x20	2	3	Floor.....	Blankets and quilts	Never.....	Never.
Wadena.....	(Condemned and disused.)										
Waseca.....	1880	170	1	8x12	8x12	2	2	Floor.....	Blankets.....	Quarterly.....	Bi-monthly.
Watertown.....	1880	175	2	7x10		2	2	Floor.....	Blankets and quilts	When necessary..	When necessary.
Walnut Grove.....	1885	400	1	10x12	20x40	2	2	Bunks.....	Blankets and quilts	Never.....	Monthly.
Wells.....	1883	500	2	8x 6	18x16	4	4	Floor.....	Blankets.....	Quarterly.....	Don't scrub.
White Bear Lake.....	1883	300	2	8x12	18x12	2	4	Bedsteads.....	None.....	Weekly.....	Weekly.
Willmar.....	1881	75	2	6x 8	- 6x12	2	1	Wooden bedsteads.....	Blankets..	When necessary..	When necessary.
Winona.....	1880	200	1	8x14	8x14	2	13	Floor.....	Blankets.....	When necessary..	When necessary.
Winnipeg City.....	1881		3	6x 8	22x 6			Iron beds.....	Blanket and robe.....	When necessary..	When necessary.
Winona.....									Blankets.....		
Worthington <sup>a</sup> .....	1874	100	1	8x10	10x14	10	6	Bunks.....			
Wykoff.....	1887	2,000	2	8x10	12x14	4		Hammocks..			
Zumbrota.....											

<sup>a</sup> No report

## TABLE "CC."

SHOWING THE NUMBER OF INMATES OF CITY AND VILLAGE  
LOCKUPS IN MINNESOTA DURING THE YEAR 1887.

LOCATION.	Insane Persons.	City or Village Prisoners.	County Prisoners.	Total Number of Prisoners.	Tramps Lodged not Prisoners.	Prisoners at Mid- night, Dec. 31, 1887.	Lodgers at Mid- night, Dec. 31, 1887.
Ada a.....							
Adrian.....		8		8	6		
Albert Lea.....		101		101	8		
Alexandria.....		21		21	3		
Anoka.....	1	82	4	87	49	1	
Arlington.....			8	8	2		
Atwater a.....							
Audubon.....					5		
Austin.....	3	130		133	65		
Barnesville.....		45		45	12		
Beaver Creek.....					1		2
Belle Plaine.....							
Bird Island.....		2		2	4		
Blooming Prairie.....		24		24	8		1
Brainerd.....		251		251	17	3	
Brownsdale.....		1		1			
Browns Valley.....		4	2	6	1		
Brownsville.....					6		
Brownton.....		3		3			
Cambridge.....							
Canby.....	1	4		5	3		
Cannon Falls.....							
Canton.....		4		4			
Chatfield.....		3		3	3		
Claremont.....							
Cloquet.....		52		52	6		
Cokato.....		8		8	3	4	3
Crookston.....		84		84			
Dassel.....		8	4	12	10		
Delano.....		25	2	27	27		
Detroit.....		9		9	14		
Dexter.....		2		2			
Dodg Centre.....		3		3	2		
Duluth a.....							
Dundas.....		6	1	7	5		
East Grand Forks a.....							
Easton a.....							
Elizabeth.....		2	5	10			
Elk River.....			2	2			
Elysian.....							
Evansville.....		25		25	32		
Excelsior.....							
Eyota.....	1	1		2			
Ellsworth.....		14	2	16	1		
Fairmont.....		1		1	5		
Faribault.....	2	82		84	40		
Farmington.....		6		6	10		
Fergus Falls.....		96	25	121	75	1	
Fisher's Landing.....		30		30	18		
Fountain.....		5		5	2		
Fulda.....		8	12	20			
Gaylord.....		2		2	5		
Glyndon.....							
Graceville.....		30		30	2		
Grand Meadow.....		1		1	2		
Granite Falls.....							
Green Isle a.....							
Grove City.....		3		3	6		
Hastings.....		103		103	230	3	
Hector.....							
Henning.....		8		8			
Herman.....		3		3	8		
Heron Lake.....		2	5	7	1		
Hokah.....		1		1			

TABLE "CC."—CONTINUED.

SHOWING THE NUMBER OF INMATES OF CITY AND VILLAGE  
LOCKUPS IN MINNESOTA DURING THE YEAR 1887.

LOCATION.	Insane Persons.	City or Village Prisoners.	County Prisoners.	Total Number of Prisoners.	Tramps Lodged not Prisoners.	Prisoners at Mid- night, Dec. 31, 1887.	Lodgers at Mid- night, Dec. 31, 1887.
Houston.....					4		
Hutchinson.....							
Jackson.....	1		4	5	1		
Janesville.....			5	5			
Jordan.....	1	1		2	20		
Kellogg a.....							
Kenyon.....		6		6	12		
Kilkenny.....		1		1	5		
Lake City.....		12		12	100		
Lake Crystal.....		4		4	30		
Lake Park.....		12		12	2		
Lakeville.....		12		12	1		
Lamberton a.....							
Lanesboro.....		2	2	4			
Le Roy.....		1		1	3		
Le Sueur.....		60		60	75		
Lewiston.....			5	5	3		
Litchfield.....	1	46	1	48	10		
Lyle.....		12	1	13	20		
Luverne a.....							
Madelia.....		22	20	42	32		
Mankato.....	3	306		309	185		
Mantorville.....							
Mapleton.....		4		4			
Marine Mills.....		28	1	29			
Mazeppa.....		25	1	26	5		
Melrose.....		1		1			
Minneapolis:							
Central Station a.....							
Second Precinct.....	5	478		483			
Third Precinct.....	9	973		982	98		
Fourth Precinct.....	9	590	3	602	88	2	
Minneka.....			20	20			
Minnetta.....							
Montgomery.....		20	1	21	30		
Monticello.....		3	1	4	8		
Moorhead.....		71	10	81	50		
Morris.....		46		46	25		
Morristown a.....							
Morton.....		1		1			
New Prague a.....							
New Richland.....		6		6	8		
Northfield.....	1	27	4	32	66		
N. Pacific Junction...	1	95	12	108	30		
Olivia.....							
Ortonville a.....							
Osakis a.....							
Osseo.....		6		6	4		
Owatonna.....	1	46		47	35		
Pelican Rapids a.....							
Perham.....	1	3	4	8	50		
Pine City.....	3	18	2	23	22		
Pine Island.....		2	1	3	3		
Plainview.....							
Read's Landing a.....							
Red Lake Falls.....		9		9			
Red Wing.....		34	3	37	105		
Redwood Falls a.....							
Rochester.....	2	73		75	54		
Rosemont.....			1	1	2		
Rothsay.....		1		1	3		
St. Charles.....							
St. Hilaire.....		1		1			
St. James a.....							

TABLE "CC." — CONCLUDED.

SHOWING THE NUMBER OF INMATES OF CITY AND VILLAGE  
LOCKUPS IN MINNESOTA DURING THE YEAR 1887.

LOCATION.	Insane Persons.	City or Village Prisoners.	County Prisoners.	Total Number of Prisoners.	Tramps Lodged not Prisoners.	Prisoners at Mid- night, Dec. 31, 1887.	Lodgers at Mid- night, Dec. 31, 1887.
St. Paul:							
Central Station.....		5,702		5,702	4,260		
Margaret St. Sub- station <i>a</i> .....							
Ducas St. Substa- tion.....	3	660		663			
Rondo St. Sub- station.....	1	483		484	5		
Union Park.....		107		107	4		
St. Vincent <i>a</i> .....							
Sacred Heart.....		2	1	3			
Sauk Centre.....	1	32	2	35	28		
Sauk Rapids <i>a</i> .....							
Shakopee <i>b</i> .....					130		
Sleepy Eye.....		4	2	6	1		
Springfield.....			2	2			
Spring Valley.....		9		9	13	4	6
Starbuck.....		7		7			
Stillwater <i>a</i> .....							
Taylor Falls.....		7		7	2		
Tracy.....		25		25			
Verndale <i>a</i> .....							
Wabasha.....					55		
Waconia.....		2		2	1		
Wadena <i>a</i> .....							
Waseca.....	1	11		12	3		
Watertown.....		8		8			
Walnut Grove.....							
Wells <i>a</i> .....							
White Bear Lake.....	1	44		45	23		
Willmar.....	1	67		68	19		
Windom <i>a</i> .....							
Winnebago City.....		3		3			
Winona.....	4	326	10	340	420		
Worthington.....							
Wykoff <i>a</i> .....							
Zumbrota.....		98	7	105	16		
Estimated for 30 Lockups not re- ported.....	10	7,300	390	2,700	2,100		
Totals.....	68	19,256	591	14,815	8,962		

*a* No report received.*b* County jail used as lockup.



“TABLE DD.”

PRISON CENSUS OF MINNESOTA AT MIDNIGHT, JULY 31, 1885.

PRISONERS AWAITING TRIAL.

*In County Jails.*

Insane persons.....	3	
Held as witnesses.....	4	
Other prisoners.....	131	
	—	138

*In City and Village Lockups.*

Insane persons.....	1	
Other prisoners.....	92	
	—	93

Total awaiting trial.....	231
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PRISONERS SERVING SENTENCE.

In county jails.....	68	
In city and village lockups.....	19	
In St. Paul workhouse.....	140	
In Minneapolis workhouse.....	78	
Total in jails, lockups and workhouses.....	—	305
In the state prison .....	437	
	—	742
Total number serving sentence.....	742	
Total number of prisoners <i>a</i> .....	973	

*a* Not including 231 inmates of the state reform school, nor 6 women sentenced to the House of the Good Shepherd.

## CITY WORKHOUSES.

City workhouses are maintained by the cities of St. Paul and Minneapolis.

The St. Paul city workhouse was opened in 1883; the Minneapolis workhouse was opened in 1886. Both of these workhouses have suffered inconvenience for want of proper drainage. Neither workhouse has as yet direct railroad connections which will be necessary in order to carry on any extensive manufacturing enterprise. Both institutions have found difficulties in inaugurating any satisfactory labor system. The inmates of the St. Paul workhouse have been employed in erecting buildings and improving the workhouse grounds and also in improving the Como park. The prisoners in the Minneapolis workhouse have been employed in erecting buildings, improving the grounds, carrying on the farm and also upon public roads and upon cemetery grounds. At the St. Paul workhouse knitting has been carried on on state account to a small extent, employing a few of the long term prisoners.

Both of these workhouses have suffered inconvenience from the short terms of the great body of the prisoners. In the Minneapolis workhouse in 1887, out of 1,627 prisoners, 883 were sentenced for terms of 10 days or less and only 191 for more than 30 days. In 1887, in the St. Paul workhouse, out of 2,148 prisoners 614 were sentenced for 5 days or less, 890 for 10 days or less, 234 for more than 30 days and only 23 for more than 90 days. The committal of this class of convicts to prison for sentences of 10 days or less is worse than useless. It only serves to clean them up and whet their appetites for a new debauch.

The administration of both of these prisons is good. The Minneapolis workhouse has suffered from frequent changes of superintendents. It goes without saying that such prisons, to be successful, must be entirely divorced from politics. No satisfactory results can be expected in either of these workhouses until some systematic labor system is applied to them. Thus far nothing definite has been settled upon in either case. It has been proposed to manufacture brick at the Minneapolis workhouse. This is a good industry, the objection being that it will only employ a limited number of men through the summer

months when the population of the prison is small, while the great necessity is for employment during the winter months when the prison population will be large.

The result will be that it will be necessary to have a plant for winter labor which will remain idle during the summer.

The knitting business which is carried on in the St. Paul workhouse can not furnish employment to the great body of the prisoners. At the Minneapolis workhouse it is proposed to employ a portion of the prisoners on a neighboring quarry but this employment offers some difficulties. It would involve extra expense for warm clothing in winter.

I am of the opinion that the only solution will be to introduce into each of these workhouses some light and simple labor such as cane seating, mat making, brush making or to develop some branch of manufacturing like chair making, woodenware or some similar branch which employs a considerable amount of unskilled labor.

#### THE ST. PAUL CITY WORKHOUSE.

The workhouse is located on a forty acre tract at Lake Como adjoining the Como Park and near the St. Paul & Northern Pacific railroad.

The St. Paul city workhouse was organized by an act of the legislature approved Feb. 10, 1881.

Legislation affecting it was passed during the session of 1882-83.

The first board of directors consisted of Peter Berkey, president, R. W. Johnson, W. H. Richardson, Louis Engel, and Mark Costello. The original appropriation was \$30,000. With this was constructed a three story building 50x100 feet containing 30 double cells and a large room above the cell room. In the summer of 1883 Mr. G. W. Lamson was elected president of the board of directors, since which time he has given much attention and study to the development of the institution.

Dr. F. A. Renz was the first superintendent of the workhouse. After two years' faithful and successful service, he was succeeded in October, 1885, by John Fitzgerald, the present superintendent, who was formerly connected with the Detroit House of Correction. Mr. Fitzgerald has proved a thoroughly efficient officer.

In 1885 a main cell building was constructed containing 128 cells together with hospital, kitchen, store room, bakery, etc.

The cost of the additional improvement was about \$70,000. The cells are iron. They are  $5 \times 7\frac{1}{2}$  feet and are 7 feet high. Each cell being intended for two persons giving a total capacity of 316 prisoners.

The workhouse is admirably managed. Cleanliness prevails; the health of the prison is good. The discipline is excellent.

The great lack of the prison is that of suitable systematic labor.

#### *Expense of Maintenance.*

It is difficult to ascertain accurately the cost of maintaining the prison owing to the fact that, as in all new institutions, a considerable portion of the outlay is for improvements and fixtures. During 13 months ending Dec. 31, 1887, city warrants were drawn for \$29,769.61. Cash receipts from sales amounted to \$9,577.28 making the net cost to the city, \$20,192.33. The average number of prisoners was 116.7 making the cost per capita for 13 months \$137.03, which is at the rate of \$159.72 per year or \$3.32 per week.

The superintendent's estimate of net expense is \$16,474.28 which would be for 13 months, \$141.17 per capita or at the rate of \$130.32 per year. The daily cost of food for each person fed including officers and employes was 10.5 cents for the year 1887. The daily cost of food per capita in the state prison being 12.1 cents.

The balance sheet of the institution on page 11 of the fifth annual report makes a "surplus of credits over expenditures of \$7,013.83." "This surplus is created by crediting the workhouse with prison labor \$20,343.60." This prison labor consists of 27,312 days labor at 75 cents per day. Of this labor 14,000 days were "routine work" being the domestic labor, etc., of the prison, 3,322 days labor were performed upon the park improvement of the grounds and buildings, 5,020 were employed in manufacturing making 8,342 days. If the prison were credited with this labor at 50 cents per day, which is certainly as much as it is worth, it would amount to \$4,171, which deducted from the cash expenditure by the city, \$20,192, would leave a net expense of \$16,000, which agrees closely with the superintendents estimate of the net expense.

There is no reason why the labor of prisoners in carrying on the domestic work should be regarded as an offset against the



cash expenses of the institution. The rate per capita \$130.32 is not excessive for an institution of this size and is less than would be paid for the board of the prisoners in the county jail, while the condition of the prisoners is in other respects to be much preferred.

During the year 1888 warrants were drawn on the city treasury for current expenses amounting to \$29,668.75. Cash was paid back into the city treasury to the amount of \$9,709.32, leaving the net cost to the city \$19,959.43. The average number of prisoners was 155.6, making the per capita cost to the city \$128.27. The daily cost of food for each person fed, including officers and employes, was 9.5 cents.

#### THE MINNEAPOLIS CITY WORKHOUSE.

The Minneapolis city workhouse is located north of the city hall on Second avenue, near the Mississippi river, on a sixty acre tract.

The workhouse is administered by a committee of the board of aldermen. The institution was opened in 1886, under the superintendency of John West. Mr. West was succeeded in April, 1887, by Mathias Gross, who served as superintendent for one year, when Superintendent West was reappointed. The details of administration have fallen largely on Michael Whelan, deputy superintendent and secretary of the prison.

The workhouse was opened in 1886, with a capacity of 56 prisoners, which has since been increased by the erection of an additional cell room to 156. The prison, so far as constructed, now consists of an administration building, containing offices and sleeping apartments for guards, and two cell rooms with accommodations for 156 prisoners, a large dining room, kitchen, laundry and boiler house. The women's department is on the second floor above the kitchen.

The institution is kept clean and in good order. The inmates appear to be well fed and cared for.

#### *Expense of Maintenance.*

In the early stages of every such institution the expenditures are necessarily high, partly because the proportional cost of keeping a small number of inmates is large, partly because the institution is necessarily accumulating furniture, utensils, etc.

For the year ending Feb. 28, 1887, the average number of in-

mates was 79. The total amount paid from the city treasury for maintenance was \$22,910, miscellaneous receipts paid into the city treasury, \$852, leaving a net expenditure of \$22,058, making a cost per capita of about \$252. For the ten months ending Dec. 31, 1888, the average number of inmates was 78.3; the total expenditure from the city treasury, \$17,187; miscellaneous receipts paid into the city treasury, \$249; net cost to the city, \$16,937; giving a per capita for the ten months of \$225, or a yearly rate of \$270 per inmate.

The daily cost of food for each person fed was 12.5 cents for the year 1886, 11.7 cents for the year 1887, and for the year 1888 12.3 cents.

For the year ending Feb. 28, 1887, the institution is credited with 17,744 days labor at 83 cents per day, making \$14,727, but of this labor 10,000 days was performed in the routine work of the prison, leaving only 7,744 days of productive labor, which was expended on buildings and repairs to roads, grading and improving the grounds, and work on the city cemetery.

For the ten months ending Dec. 31, 1888, the institution is credited with 15,872 days, of which 9,892 were given to routine and domestic labor of the prison, and 5,980 to productive labor as in the previous year.

This institution, with its cleanliness and good order and discipline, is a vast improvement upon the former plan of herding prisoners of this class in the Hennepin county jail, but it is of vital importance that some system of labor should be adopted for the workhouse. The general observations made upon the St. Paul workhouse on this subject will apply for the most part to the Minneapolis workhouse.

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## SECRETARY'S REPORT.

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### PART III.--PAUPERISM.

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#### 1. RELIEF OF PAUPERISM.

*With Tables "EE" to "MM."*

#### 2. COUNTY POOR HOUSES.

*With Tables "NN" to "TT."*

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## PAUPERISM IN MINNESOTA.

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In the report of special agent Frederick Howard Wines in volume 21 of the census of 1880, Mr. Wines said: "The law which governs the distribution of pauperism in the United States is as follows: The ratio of pauperism to the total population diminishes alike from north to south and from east to west. If New England, or the principal New England state (Massachusetts) be taken as a starting point, it matters not in what direction a line be drawn, the largest amount of pauperism relatively to the population, will be found to exist in Massachusetts, and the smallest in the state furthest removed from Massachusetts, while the intervening states will exhibit on the whole, and with scarcely an exception, a gradual decline in something like the degree of their removal from the extreme northeast." The statistical tables accompanying this report fully corroborate the statement of Mr. Wines, and the statistics of pauperism which have been accumulated in this office during the past five years would tend to establish the law thus laid down.

The truth is that Minnesota has but little real pauperism, even in the cities. During a recent inspection of the free kindergartens of St. Paul by members of the board of corrections and charities, the teacher of one of the kindergartens, who had been engaged in similar work in Chicago, said "I think the poor people in St. Paul are very comfortably off as compared with the very poor people in Chicago." In the rural districts of Minnesota abject pauperism is comparatively rare. There are a good many cases where temporary assistance is demanded to prevent suffering, but the probability is that fully one-half of the comparatively small amount of relief which is given could be dispensed with, and the necessary relief secured by private voluntary assistance. Of the 80 counties in Minnesota, only 25 maintain poorhouses. Of these 25 in 1887 only 13 averaged more than 10

inmates each, and the total average number of paupers maintained in poorhouses in the entire state was less than 300. During the year 1887 the number of paupers maintained in poorhouses was less than in 1886, and in 1886 less than in 1885; so that notwithstanding the growth of the state, there appears to be an actual decline in the number of paupers maintained.

It will be apparent from the accompanying statistics that there is a marked and unaccountable diversity in the expenditures for the maintenance of paupers. In some cases the difference is explainable by peculiar local circumstances, as for example, in St. Louis county, which suffers from a influx of non-resident paupers from outside the state, and also from an accumulation of cases of injured men from the adjacent lumbering and mining regions. The per capita expense for maintaining paupers in the cities of St. Paul and Minneapolis has been for many years but little above the general average of the state, notwithstanding the fact of the much greater ratio of pauperism in cities. The actual disbursement for relief of pauperism is much less in the cities of St. Paul and Minneapolis than in other cities of corresponding size. The Relief Society of St. Paul, which is the principal agency, disburses less than \$1,000 a year in cash for relief of the poor, besides considerable quantities of clothing. The principal work of private charities in the cities is in the maintenance of hospitals and orphan asylums, which are most generously endowed.

#### PROVISION FOR THE FUTURE.

Minnesota is most fortunate in being thus relieved from the burdens which oppress less favored states, in the support of an army of dependents and in the relief from the burdens of crime and misfortune which cling to the skirts of pauperism. While pauperism in the state has apparently diminished within the past three years, the number of inmates of our jails and prisons has shown a corresponding decrease, or at least has failed to keep pace with the increase of the population. The important problem now presents itself how shall we maintain this happy state of affairs; what safeguards can be established which shall measurably prevent the growth of pauperism and its attendant evils, which has taken place in older communities with the increase of pauperism. No more important problem can present itself. In my opinion much can be done by a diligent study of the problem

of pauperism; by thoroughness in the preparation of statistics, and especially by requiring all officers who dispense public relief to exercise rigid scrutiny and to operate under such rules as will prevent public institutions from becoming nurseries of pauperism. To this end, I have planned a system of detailed records for every application for public relief which shall be presented to public officers, and in my judgment it will be wise for the board of corrections and charities in the exercise of the right given it by law to prescribe and require such a detailed record of every application.

The administration of pauper relief, partly from mistaken kindness and partly through the introduction of improper influences has often become a prolific source of pauperism. This should by all means be avoided.

#### VOLUNTARY ASSOCIATIONS.

Important contributions to the work which has been outlined above are being made in this state by voluntary societies. The St. Vincent de Paul society is an efficient agency for dealing with pauperism. Every Sunday morning, in connection with the parishes of the Roman Catholic church in St. Paul and Minneapolis, there is held a meeting of the committee, whose duty it is to investigate with care all applicants for relief from their members and to devise the wisest means for dealing with the cases. The amount of pecuniary assistance given by this society is small, but the amount of pauperism prevented by kindly advice and assistance in procuring employment is very great.

The Society for the Relief of the Poor in St. Paul has done much in the way of intelligent study of these difficulties. Within the past two years this society has appointed a general agent who is doing efficient work in the investigation of cases and the exposure of frauds and professional mendicants.

The Associated Charities of Minneapolis has grown into an efficient organization, whose usefulness increases from year to year. During the past two years, the agent of this society has been the means of sending twenty homeless and neglected children to the State Public School. It is a remarkable fact that the city of Minneapolis with all of its growth has been able to get on thus far without any general society for the relief of the poor, such as has been found necessary in most of the cities of the Union. This has been due, partly to the unusual efficiency of the city



system for the relief of the poor, partly to the activity of individuals and charitable organizations and partly to the readiness with which poor persons who were willing to work could maintain themselves.

#### THE TOWN PAUPER SYSTEM.

One of the plans which has been adopted in this state to check the spread of pauperism is by the adoption of what is known as the town system of caring for the poor. Under this system poor persons become a charge upon the several cities, villages and townships wherein they reside, instead of being a charge upon the several counties, as is required by the general law.

The advantages of the town system are as follows: First, the administration being local, comes nearer to the people, and there is less liability to extravagant expenditures of public funds or to the corrupt use of such funds for political or private purposes. Second, the officers of the town, city or village can have a much closer knowledge of the needs of the applicants for relief than is possible under the county system. Third, unworthy applicants are less liable to apply for aid under the town system than under the county system. There is great force in these considerations.

On the other hand there are difficulties in the application of the town system in a new state. First, the state is so sparsely settled that many towns have not the financial resources to make proper provision for cases of emergency; and, in practice, it is found that paupers sometimes suffer from neglect on this account. Second, in a new state, with an immigrant population, it becomes necessary to care for a great many non-resident paupers. Under the county system this is done, and necessarily done, in many cases. Under the town system it is difficult, if not impossible, to secure proper aid for such persons. The tendency is to ship them from place to place and increase the number of tramps and migratory paupers. This state of things finds its legitimate outcome in a state pauper system, such as has grown up in Massachusetts under the operation of the town system. Third, the county system operates as an insurance to small communities against extraordinary burdens arising from accidents or epidemics. The argument urged in favor of the town system is that paupers are found almost universally in the cities and villages, and that it is unjust to tax the farming dis-



tricts for their maintenance. This argument overlooks the fact that many paupers have been reduced to poverty on farms and have removed into the cities and villages; so that while pauperism is found in the villages, it originated on the farm. The county system distributes the burden fairly through the community.

I am of the opinion that in an old and settled state the town system has some decided advantages, but that it is not well adapted to a new and sparsely settled community. Twenty counties of Minnesota have had laws passed for the establishment of the town system. Two of these counties rejected the law at the polls. In six cases the law has subsequently been repealed, leaving twelve counties still operating under the town system. The laws which have been placed upon the statute books have often been carelessly drawn, and inconsistent with each other, requiring subsequent amendment. In my judgment it would be wise to place upon the statute books a general law which should cover all counties adopting the town system, and should allow any county to change its system of caring for the poor from the county system to the town system, or from the town system to the county system, as the case may be, under proper restrictions.

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## HISTORY OF THE TOWN PAUPER SYSTEM IN MINNESOTA.

### FREEBORN COUNTY, 1875.

The first county to adopt the township system was Freeborn county (1875, p 301). The act is brief and well drawn, but in this act, as in nearly all subsequent ones, the residence law is imperfect, since a pauper may have a residence in the county, but not in any town thereof. The law was amended in 1883, requiring that the county should pay pauper expenses exceeding two hundred dollars per year in any town, and exceeding six hundred dollars per year in the city of Albert Lea.

### CARVER AND STEARNS COUNTIES, 1877.

Freeborn county was followed in 1877 by Carver and Stearns counties.

The Carver county law (1877, p. 304) was the same as that of

Freeborn county with two added provisions: First, that paupers might appeal from the decision of the town supervisors to the county commissioners; second, that town paupers should have the services of a county physician, if one should be appointed.

The Stearns county law (1877, p. 293) was an adaptation of the general law to the town system. The law was well drawn, but quite long.

#### WRIGHT COUNTY, 1878.

The Wright county law (1878, p. 482) is essentially the same as the Stearns county law, being based on the general law, but omits the provisions relating to cities. The law was amended in 1887, inserting that provision.

#### HENNEPIN COUNTY, 1879.

The Hennepin county law (1879, p. 434-436) provides that the city council shall appoint a superintendent of the poor, and that city poor shall be a charge upon the city of Minneapolis and other poor upon the several towns. The poor farm to be maintained by the county, and the maintenance of the poor to be charged back upon the city and towns.

#### SIBLEY AND GOODHUE COUNTIES, 1881.

The Sibley county law (1881, p. 743) was a very brief one, transferring the care of the poor to the town supervisors, and providing for a town poor fund, but prescribing no rules or regulations. In 1889 a more comprehensive law was enacted.

The Goodhue county law (1881, p. 764) was the same as the Freeborn county with three additions. Section 2 provides for a town poor fund, section 7 provides for submission to the people, and third, the residence term was made two years instead of one. The law was a decided improvement on the Freeborn and Carver county laws, but was defeated at the polls and never took effect.

#### MORRISON AND BENTON COUNTIES, 1881,

Were provided for in one law (1881, p. 765) which was the same as the Sibley county law, with the addition of section 4 applying the general law as to residence, and section 5 transferring funds from the county to the town treasuries. This law proved

unsatisfactory in both counties and was repealed as to Morrison county in 1883, and as to Benton county in 1885.

#### LE SUEUR COUNTY, 1881.

The Le Sueur county law (1881, ex. session, p. 233) is the same as the Freeborn county law, except that the county is made responsible for pauper expenses in any town above two hundred dollars per year.

#### KANDIYOHI AND DOUGLAS COUNTIES.

The Kandiyohi county law (1883, p. 396) is essentially the same as the Goodhue county law—almost an exact copy. It was amended in 1885 making the residence term one year, and making village paupers a charge upon townships instead of villages. The law was repealed in 1889.

The Douglas county law is essentially the same as the Stearns county law, being an adaptation of the general law to the town system.

#### BROWN AND SWIFT COUNTIES, 1885.

The Brown county law (1885, p. 440.) is an exact copy of the Kandiyohi county law. The old law proved unsatisfactory and was repealed in 1887.

The Swift county law (1885, p. 448) was the same as the Kandiyohi county law, except that it did not provide for submission to the voters of the county. It proved unsatisfactory and was repealed in 1889.

#### MCLEOD, MEEKER, POPE AND SCOTT COUNTIES, 1887.

The McLeod county law (1887, p. 853) is a copy of the Brown county law.

The Meeker county law (1887, p. 850) is a copy of the Kandiyohi county law. It was defeated at the polls and never took effect. The same law was re-enacted in 1889.

The Pope county law (1887, p. 861) agrees with the Kandiyohi county law, except that the law is not to be submitted to vote and the provision with reference to payment of poor funds from the county to the township treasury is a little different.

The Wadena county law (1887, p. 863) is the same as the Swift county law.



The Scott county law (1887, p. 820) is peculiar. Section 2 gives to the town and city officers all the rights, powers and duties of county commissioners. Section 3 prescribes a tax not exceeding one mill. This seems to be a well drawn act.

#### THE POORHOUSES OF MINNESOTA.

The development of the poorhouse system of Minnesota has been very slow, owing to the small amount of pauperism in the state. Only twenty-five counties in the state have poorhouses and of these only eight averaged more than ten paupers each in 1887, viz.: Hennepin county 55, Ramsey 39, Wabasha 22, Winona 21, Goodhue 18, Otter Tail 16, Rice 16, and Nicollet 14. Only four counties have satisfactory poorhouse buildings, viz.: Ramsey, Becker, Dodge and Blue Earth counties. Of the remaining counties only Hennepin and Wabasha counties have buildings of a permanent character; the others are all wooden buildings and for the most part of inexpensive construction. It is possible therefore for Minnesota in the future, when necessity shall arise, to realize the very best principles in almshouse construction.

During the past two years Becker and Cottonwood counties have built new poorhouses. Becker county poorhouse is well planned and well constructed, the plan having been approved by the board of corrections and charities. Cottonwood county poorhouse is badly planned and badly constructed, the county having been advised by the board of corrections and charities to postpone building until a later date.

Rice county and St. Louis county have built important additions to the old wooden buildings. In both cases it would have been wiser for the counties to have started anew on a permanent basis, as neither of these buildings is well adapted to the purpose.

A few counties need poorhouses which do not now have them, viz.: Polk county, Stearns county, Freeborn county, and possibly one or two others.

The statistics of poorhouses show less extravagant expenditure than formerly, only three counties exceeding the rate of five dollars per week for the maintenance, the average for 1887 being \$2.96. The average number of paupers maintained in 1887 was only 295. The corresponding average for 1885 was 341, a decrease of 46 in two years. This decrease is very re-



markable in view of the increase in population of the state and is in keeping with the equally marked decrease in the population of county jails.

#### REMARKS ON TABLES SHOWING EXPENDITURES FOR RELIEF OF THE POOR.

Table "EE" is a comparison of the expenditures for the relief of the poor for four years ending Dec. 31, 1887. The increase is not great, being from \$244,853 in 1884 to \$289,590 in 1887, an increase of 18 per cent; while the current expenses of the state correctional and charitable institutions increased from \$318,950 in 1883-4 to \$493,900 in 1887-8, an increase of 55 per cent in the same length of time. There is an apparent increase in the expense per inhabitant from 22.9 cents in 1884 to 25.9 cents in 1887, but it will be observed that the figures are based on the census of 1885. Had they been based on the actual population the per capita expense would have shown no increase. The apparent increase in the pauper expenses of Hennepin, Ramsey and St. Louis counties is doubtless due to the same cause.

As a matter of fact, the pauper expenses of counties in Minnesota show but little variation from year to year, and are less than those of older states, owing partly to the fact that the insane are not a county charge in Minnesota as they are in most of the older states.

Tables "FF" and "GG" furnish a detailed statement of expenditures for relief of the poor for 1886 and 1887.

Tables "HH" and "II" exhibit the same facts reduced to a per capita on the population as shown by the census of 1885. It will be observed that these per capitass show a remarkable uniformity from year to year and that most of the counties seem to be governed by a nearly uniform standard of expenditure.

Tables "JJ" and "KK" show the pauper expenses of the twenty-six most populous counties in the state arranged in the order of their population. The tables are thus arranged for the reason that the expenses of populous counties are naturally more stable than those of sparsely settled counties and for the reason that comparisons between counties of like population are more useful than between those of varying population. The principal facts brought out are (a) that there is great diversity of expense between counties which do not differ materially in population,

situation, wealth or character of inhabitants; (*b*), that counties under the town system usually but not invariably spend less money in caring for the poor than those under the county system; (*c*), that the per capita expense in wealthy, populous counties is more than in poor and sparsely settled counties.

Table "LL" is a statement of counties spending more than 30 cents per inhabitant or less than 12 cents per inhabitant for the relief of the poor in 1887. Counties spending more than 30 cents should examine their expenditure to see whether they are not excessive. Counties spending less than 12 cents should exercise care lest they are not giving adequate relief to cases of actual need. It is difficult to understand why the expenditures in the counties of Carver, Houston, Stearns and Wright should be less than one-fourth as much as those in the counties of Goodhue, Rice, Wabasha, Washington, Otter Tail and Dodge. It would seem as if there must be an excess on the one hand or a deficiency on the other, in some cases, at least.

Table "MM" is a statement of expenditures for medical services and medicines for four years. The average amount expended varies but little from year to year, but some counties are undoubtedly extravagant in this particular.

TABLE "EE."

EXPENDITURES FOR RELIEF OF THE POOR IN MINNESOTA FOR  
FOUR YEARS, ENDING DEC. 31, 1887.*(The Per Capitas are Based on the Census of 1885.)*

COUNTIES.	1887.		1886.		1885.		1884.	
	Pauper Expenses.	Cents per Inhabitant.	Pauper Expenses.	Cents per Inhabitant.	Pauper Expenses.	Cents per Inhabitant.	Pauper Expenses.	Cents per Inhabitant.
Aitkin.....	\$270	19.4	\$453	32.7	\$465	33.5	\$484	34.9
Anoka.....	2,862	28.3	2,844	28.2	4,088	40.5	2,407	23.9
Becker.....	1,774	23.8	2,143	28.9	1,993	26.8	2,950	40.
Benton.....	435	9.2	1,155	24.5	965	20.4	403	8.5
Big Stone.....	686	14.6	530	11.3	523	11.1	304	6.5
Blue Earth.....	5,425	20.5	6,139	23.2	4,561	17.2	4,847	18.3
Brown.....	3,522	25.2	3,618	26.	3,042	21.7	3,885	28.
Carlton.....	1,646	51.6	746	23.4	1,143	35.9		
Carver.....	1,574	9.8	1,205	7.5	1,641	10.3	1,425	8.9
Chippewa.....	3,203	48.8	2,242	34.1	1,632	24.9	1,767	23.9
Chisago.....	1,948	19.8	1,964	20.1	1,793	18.3	1,785	17.3
Clay.....			4,171	40.2			6,103	60.
Cook.....								
Cottonwood.....	2,332	40.4	2,037	34.5	620	10.5	570	9.6
Crow Wing.....	1,778	20.3	1,363	15.5	1,391	15.9		
Dakota.....	3,655	19.7	4,650	25.	3,774	20.3	3,773	20.3
Dodge.....	3,283	31.3	3,424	32.6	3,565	34.	2,904	27.7
Douglas.....	1,925		1,687	13.	2,139	16.5	1,979	15.3
Fairbault.....	2,806	18.5			2,412	15.9	3,229	21.3
Fillmore.....	3,483	13.	4,456	16.7	3,403	12.7	2,918	10.9
Freeborn.....	2,816	16.2	2,693	15.5	2,536	14.6	2,459	14.2
Goodhue.....	15,472	49.9	15,896	51.1	14,125	45.4	17,475	56.2
Grant.....	2,243	43.	2,165	41.7	1,702	32.8	1,172	22.6
Hennepin.....	43,764	29.4	39,950	26.8	41,755	28.	31,947	21.5
Houston.....	1,824	8.5	1,522	9.9	1,050	6.8	1,429	9.2
Hubbard.....	50	.6	220	25.7	264	30.9	36	4.2
Isanti.....	1,780	25.3	1,714	24.3	1,336	19.	1,142	16.2
Jackson.....	1,049	17.2	760	12.4	1,146	18.8	1,307	21.4
Kanabec.....	755	68.	902	81.3	554	50.		
Kandiyohi.....	1,818	14.1	1,360	10.6	944	7.3	696	5.3
Kittson.....	966	27.9	1,025	29.6	1,171	38.8		
Lac qui Parle.....	716	9.1	824	10.5	926	11.8		
Lake.....	62	13.6	109	24.	10	2.2	154	34.
Le Sueur.....	2,628	14.1	2,562	13.8	2,819	15.2	2,432	13.1
Lincoln.....	549	12.7	587	13.5	525	12.	125	2.9
Lyons.....	1,405	17.7	850	10.7	964	12.1	1,316	16.6
McLeod.....	4,214	27.5	2,803	18.3	2,829	18.5	1,689	10.9
Marshall.....	2,025	35.2	2,576	46.3	1,852	33.3	1,703	30.6
Martin.....	855	13.3	765	11.9	524	8.1		
Meeker.....	4,121	28.4	3,281	22.5	2,625	18.1	2,717	18.8
Mille Lacs.....	810	42.8	792	41.7	1,369	72.2	432	25.4
Morrison.....	3,734	39.7	2,682	30.6	2,127	22.6	1,603	17.
Mower.....	2,212	14.5	1,692	11.4	1,060	6.9	1,141	7.5
Murray.....	724	14.3	519	10.2	581	11.5	582	11.5
Nicollet.....	2,725	20.3	1,997	14.8	2,169	16.1	5,010	37.3
Nobles.....	1,688	30.	1,607	28.4	1,490	26.5	1,417	25.1
Norman.....	1,701	20.4	1,580	18.9	1,147	30.8	664	8.
Olmsted.....	4,078	19.9	4,371	21.3	3,811	18.5	4,357	21.2
Otter Tail.....	11,748	37.3	12,166	38.6	12,865	40.8	9,526	30.2
Pine.....	629	28.8	688	31.5	805	36.8		
Pipestone.....	1,897	48.	1,333	33.6	568	14.4	618	15.6
Polk.....	5,319	22.7	8,236	35.1	4,499	19.2	3,528	15.
Pope.....	1,041	12.	1,516	17.4	1,571	18.	766	8.8
Ramsey.....	37,226	32.	32,936	28.4	32,580	28.	26,537	22.9
Redwood.....	141	2.2	952	14.7	1,179	18.	1,455	22.4
Renville.....	2,595	19.7	2,330	17.6	2,091	15.9	1,884	14.3
Rice.....	11,971	48.	12,373	49.1	8,814	35.3	7,148	28.7
Rock.....	1,297	24.8	2,281	43.5	747	14.2	772	14.8

TABLE "EE"—CONTINUED.

COUNTIES.	1887.		1886.		1885.		1884.	
	Pauper Expenses.	Cents per Inhabitant.	Pauper Expenses.	Cents per Inhabitant.	Pauper Expenses.	Cents per Inhabitant.	Pauper Expenses.	Cents per Inhabitant.
St. Louis.....	10,518	51.4	10,461	51.1	10,207	49.9	7,407	36.2
Scott.....	2,795	19.7	2,811	19.8	3,700	26.1	3,739	26.4
Sherburne.....	981	17.4	727	12.9	971	17.2		
Sibley.....	1,762	13.4	1,527	11.6	1,810	13.8	1,380	10.5
Stearns.....	2,292	8.	3,112	10.8	3,016	10.5	2,409	8.4
Steele.....	1,622	12.7	2,941	23.1	1,803	14.2	2,682	21.1
Stevens.....	1,966	43.6	1,083	24.	1,640	36.3		
Swift.....	1,112	11.3	3,100	37.1	2,114	25.3	1,761	21.
Todd.....	982	10.2	831	8.6	1,120	11.6	1,982	20.5
Traverse.....	1,087	38.	1,296	45.3	465	16.2	656	23.
Wabasha.....	6,973	38.7	6,444	35.8	5,402	30.	7,826	43.5
Wadena.....	726	20.4	1,271	35.7			1,303	36.5
Waseca.....	3,689	27.6	3,333	25.	4,298	32.2	4,612	34.6
Washington.....	11,463	38.5	12,639	42.5	11,257	38.	10,566	35.5
Watsonwan.....	1,040	17.3	436	7.2	902	15.	776	13.
Wilkin.....	865	23.2	1,288	34.5	768	20.6	300	8.
Winona.....	9,090	28.5	9,548	29.9	8,697	27.2	7,994	25.
Wright.....	1,422	6.2	1,213	5.3	1,910	8.4	1,824	8.
Yellow Medicine...	2,452	31.2	1,268	16.2	1,850	23.5	2,313	29.4
Unreported counties, estimated...	4,000	33.8			7,406	53.2	11,801	27.2
Totals .....	\$289,590	25.9	\$285,671	25.6	\$267,620	24.	\$244,853	22.9



TABLE "FF."

DETAILED STATEMENT OF EXPENDITURES FOR RELIEF OF THE POOR IN MINNESOTA, DURING THE YEAR  
ENDING DEC. 31, 1886, EXCLUDING PURCHASE OF POOR FARMS, PERMANENT IMPROVEMENTS  
THEREON, AND EXPENSE OF COMMITMENT OF INSANE TO THE HOSPITAL.

COUNTIES.	Population Census of 1885.	Current Expenses of Poorhouse.	Boarding and Nurs- ing Paupers Outside Poorhouse.	Partial Support.	Trans- portation of Paupers.	Medical Attendance and Medicine.	Burial Expenses.	Per Diem of County Commis- sioners.	Other Purposes.	Total Pauper Expendi- tures.
Aitkin .....	1,388			\$188.52	\$11.35	\$181.85	\$59.60		\$12.00	\$43.32
Anoka <i>b</i> .....	10,089	\$671.26	\$260.75	1,463.95		243.80	146.09	\$58.00		2,843.76
Becker <i>b</i> .....	7,433	639.71	359.27	300.57	105.20	530.00	95.75	81.60	30.77	2,142.87
Beltrami <i>c</i> .....										
Benton .....	4,721		387.08	498.69	20.00	189.30	11.00	49.50		1,155.47
Big Stone .....	4,697			294.79		115.40	21.30		98.55	1,530.04
Blue Earth <i>b</i> .....	26,462			3,102.58	193.20	998.70	201.25	52.80	86.25	6,139.00
Brown .....	13,976	1,504.22	448.15	2,724.16		324.22	72.50	9.00	40.60	3,618.03
Carlton .....	3,189		368.83	270.10	1.15	43.25			62.27	745.60
Carver <i>a</i> .....	15,965		676.56	258.09	50.40	83.60	51.50		84.55	1,204.70
Cass <i>c</i> .....										
Chippewa <i>b</i> .....	6,561	844.89	101.50	697.51		522.90	31.00		44.57	2,242.37
Chicago <i>b</i> .....	9,765	488.33		1,203.25	4.00	208.45		39.30		1,963.93
Clay .....	10,362		1,312.31	1,368.51	72.10	908.66	175.50	30.00	228.22	4,170.60
Cook .....	5,824									
Cottonwood .....	8,743		711.52	674.69		569.25	81.50			2,036.96
Crow Wing .....	18,590	1,731.46	534.25	367.77	89.00	208.60	155.50	7.20		1,362.82
Dakota <i>b</i> .....	10,487	803.21	453.35	1,534.11	10.00	671.45	160.00	50.00	40.00	4,650.37
Dodge <i>b</i> .....	12,924		339.25	1,438.19	77.50	525.53	35.00	199.62	6.38	3,423.68
Douglas <i>a</i> .....	15,163		647.19	401.83	141.98	366.15	27.00		103.15	1,687.30
Faribault <i>d</i> .....	26,677	1,845.61	112.10	1,784.17	81.25	429.87	38.40	138.75	25.60	4,455.75
Fillmore <i>b</i> .....	17,364		1,130.27	598.13	143.89	550.80	123.50		95.96	2,692.53
Freeborn <i>a</i> .....	31,113	3,492.84	1,856.27	8,881.70	58.02	1,228.80	136.70	180.00		15,896.33
Goodhue <i>b</i> .....	5,197		880.46	1,024.85		161.50				2,465.17
Grant .....				10,484.61	1,002.36	3,090.00	1,345.00	2,875.00	3,026.65	39,949.76
Hennepin <i>a, b</i> .....	148,737	8,672.90	9,455.89	456.79	12.80	135.00	28.00	26.00	60.00	1,522.18
Houston <i>b</i> .....	15,482	804.09		203.55						
Hubbard .....	863					34.00			2.00	219.55

TABLE "FF."—CONCLUDED.

COUNTIES.	Population Census of 1885.	Current Expenses of Poorhouse.	Boarding and Nurs- ing Faupers Outside Poorhouse.	Partial Support.	Trans- portation of Faupers.	Medical Attendance and Medicine.	Burial Expenses.	Per Diem of County Commis- sioners.	Other Purposes.	Total Pauper Expendi- ture.
Isanti.....	7,031	.....	691.87	699.80	.....	264.78	16.82	16.50	24.33	1,714.10
Iasca c.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	799.70
Jackson.....	1,110	.....	225.00	331.55	.....	121.65	21.50	20.00	40.00	792.31
Kanabec.....	1,109	.....	188.20	448.78	2.00	176.55	.....	23.80	62.98	1,369.53
Kandiyohi a.....	12,849	.....	544.62	.....	.....	292.82	22.50	.....	40.16	1,024.97
Kiuston.....	3,462	.....	328.74	534.18	4.50	167.55	.....	.....	.....	824.12
Lac qui Parle.....	7,842	.....	44.50	243.74	.....	256.00	165.00	20.80	94.08	109.40
Lake.....	453	.....	51.00	.....	.....	58.00	.....	.....	.....	2,562.01
Le Sueur a.....	18,550	.....	1,131.61	864.75	140.50	216.90	95.00	.....	114.25	2,686.55
Lincoln.....	3,362	.....	368.97	35.78	.....	122.45	29.60	8.00	25.75	850.37
Lyon.....	7,936	.....	146.95	301.14	42.00	274.58	5.00	80.70	.....	2,803.10
McLeod.....	15,311	.....	1,065.52	1,317.83	11.35	218.25	82.15	108.00	.....	2,575.93
Marshall.....	5,860	.....	411.00	1,125.86	8.20	900.70	58.17	72.00	.....	2,765.34
Martin.....	6,426	.....	375.25	186.74	22.15	172.40	.....	8.80	.....	3,280.93
Meeker.....	14,501	.....	70.50	2,344.23	100.35	626.90	74.75	64.20	.....	3,792.44
Mille Lacs.....	1,897	.....	234.64	338.25	.....	168.65	50.90	.....	.....	2,881.58
Morrison.....	9,406	.....	711.45	1,385.58	.....	716.00	46.40	28.60	41.70	1,691.88
Mower b.....	15,277	680.51	273.87	477.55	20.90	197.85	46.51	.....	7.00	1,519.16
Murray.....	5,046	.....	36.09	327.92	.....	102.34	42.00	.....	.....	1,996.98
Nicollet b.....	13,434	295.75	318.85	812.78	3.45	524.15	42.00	.....	.....	1,666.73
Nobles.....	5,639	.....	102.77	1,246.98	7.00	208.75	31.25	15.00	.....	1,579.61
Norman.....	8,335	.....	105.75	1,355.36	26.00	71.50	41.00	.....	.....	4,370.57
Olmsted b.....	20,518	1,306.57	562.42	2,172.52	72.73	621.75	129.75	67.25	.....	12,166.06
Other Tail b.....	31,520	2,849.40	443.11	6,135.65	183.25	1,893.54	119.00	512.80	.....	688.36
Pine.....	2,156	.....	425.45	120.00	.....	98.25	12.00	15.00	.....	1,332.85
Pipe Stone.....	23,475	.....	1,014.44	574.00	108.25	194.65	30.50	.....	130.00	8,235.73
Polk.....	8,707	.....	1,147.50	890.63	174.45	1,846.85	24.00	675.00	.....	1,515.73
Pope.....	116,227	6,951.75	10,339.36	6,575.84	668.38	3,456.65	1,171.50	2,098.10	1,674.23	32,935.71
Ramsey b.....	13,153	30.01	518.50	159.70	.....	208.60	15.00	20.00	.....	2,330.08
Redwood.....	6,488	.....	620.00	1,233.08	20.00	314.00	28.00	115.00	.....	12,373.40
Renville.....	24,941	2,056.85	381.75	8,921.53	7.90	353.25	149.85	314.76	187.51	2,281.19
Rice b.....	5,239	2,273.94	1,100.00	3,323.25	132.80	264.10	116.50	16.10	54.50	10,461.24
Rock b.....	20,453	1,587.05	2,274.44	5,324.86	114.67	457.00	199.78	289.00	216.44	2,811.40
St. Louis b.....	14,181	871.41	583.84	446.00	140.50	460.25	45.80	101.85	161.75	.....

Sherburne.....	5,647	.....	375.52	135.51	8.00	147.40	31.25	29.40	.....	727.08
Sibley a.....	13,126	.....	376.77	995.75	3.30	238.10	8.00	.....	.....	1,526.92
Stearns a.....	28,712	.....	809.10	1,256.61	194.35	710.10	6.00	.....	136.10	3,112.26
Steele b.....	12,733	1,410.33	.....	1,021.19	46.07	168.05	55.50	163.80	75.89	2,940.53
Stevens.....	4,511	.....	360.00	1,422.88	.....	300.00	.....	.....	.....	1,082.88
Swift.....	8,373	.....	956.61	1,273.84	15.00	749.85	46.00	61.20	.....	3,102.50
Todd b.....	9,643	.....	154.65	281.45	26.80	42.07	49.80	17.10	80.00	831.04
Traverse.....	2,860	.....	32.50	540.12	7.70	715.69	.....	.....	.....	1,296.01
Wabasha b.....	17,999	3,000.02	.....	2,439.16	70.00	742.20	80.00	112.40	.....	6,443.78
Wadena.....	3,565	.....	202.80	804.80	32.05	126.35	45.00	20.00	40.00	1,271.00
Waseca.....	13,342	.....	439.66	2,472.23	38.33	309.98	11.00	59.40	2.00	3,332.60
Washington b.....	29,751	2,011.90	2,865.67	6,145.18	175.10	582.96	478.00	368.25	12.00	12,639.06
Watsonwan.....	5,995	.....	117.20	145.45	.....	166.10	7.50	.....	.....	436.25
Wilkin.....	3,734	.....	464.12	272.87	10.00	416.55	48.00	76.70	.....	1,298.24
Winona b.....	31,928	2,868.43	.....	5,648.84	100.30	599.99	172.00	144.50	13.50	9,547.56
Wright a.....	22,790	.....	444.25	5,666.97	6.00	40.35	45.38	.....	10.00	1,212.55
Yellow Medicine.....	7,863	.....	340.53	592.66	.....	265.30	16.00	53.25	.....	1,267.74
Unreported counties, estimated.....	.....	400.00	500.00	1,100.00	.....	600.00	100.00	.....	.....	2,706.00
Totals.....	1,117,798	\$48,271.61	\$54,364.34	\$118,281.93	\$4,864.03	\$35,477.38	\$7,371.16	\$9,756.74	\$7,284.09	\$285,671.28

a Town system. Paupers are a charge upon the several towns. b Maintains a poorhouse. c Unorganized. d No report received.





Jackson.....	6, 110	196.72	570.40	27.77	183.67	35.00	5.00	30.00	1, 048.56
Kanabec.....	1, 109	171.40	339.10	25.00	141.45	7.00	.....	71.18	755.13
Kandiyohi a.....	12, 849	546.20	454.92	374.65	374.65	60.75	37.00	274.12	1, 819.07
Kittson.....	3, 462	340.83	323.95	150.95	106.35	24.00	.....	20.00	966.08
Lac qui Parle.....	7, 842	66.00	389.32	.....	147.90	75.13	37.30	.....	715.65
Lake.....	453	60.25	.....	1.25	.....	.....	.....	.....	61.50
Le Sueur a.....	18, 559	1, 139.29	934.84	59.35	217.65	25.00	8.00	244.18	2, 628.31
Lincoln.....	4, 362	272.30	147.65	.....	110.30	32.00	24.00	.....	549.25
Lyon.....	7, 936	245.92	653.43	8.49	232.92	35.00	120.40	.....	1, 404.94
McLeod.....	15, 311	1, 545.88	1, 899.04	65.35	732.52	149.50	158.50	143.03	4, 213.82
Marshall.....	5, 560	316.57	562.42	21.30	855.90	50.53	125.75	92.30	2, 024.77
Martin.....	6, 426	517.86	179.65	30.00	73.25	.....	53.90	.....	2, 854.66
Meeker.....	14, 501	175.00	3, 251.57	108.00	458.65	76.75	51.40	.....	4, 191.37
Millie Lacs.....	1, 897	212.97	450.26	.....	146.70	.....	.....	66.12	3, 809.93
Morrison b.....	9, 406	527.46	1, 462.25	.....	642.45	.....	18.00	40.00	3, 733.87
Mower b.....	15, 277	771.26	423.48	4.00	393.63	157.50	.....	.....	2, 212.17
Murray.....	5, 046	.....	677.75	.....	14.45	.....	31.80	.....	724.00
Nicolet b.....	13, 434	573.78	1, 038.64	32.04	404.40	31.50	.....	63.90	2, 725.11
Nobles.....	3, 639	58.75	1, 428.38	24.65	159.00	.....	20.00	.....	1, 688.28
Norman.....	8, 335	.....	723.64	96.20	502.00	4.00	3.00	.....	1, 701.09
Omsted b.....	20, 518	1, 037.41	1, 996.81	40.91	859.35	57.50	86.25	.....	4, 078.23
Otter Tail b.....	13, 520	2, 331.72	5, 590.14	92.00	2, 511.27	109.34	328.70	243.28	11, 748.43
Pine.....	2, 186	431.09	108.00	.....	50.00	30.00	10.25	.....	629.34
Pipestone.....	3, 956	286.42	939.98	142.88	460.03	67.20	.....	.....	1, 896.51
Polk.....	23, 475	728.25	2, 933.97	43.70	1, 179.20	45.50	388.00	.....	5, 318.62
Pope d.....	8, 707	46.46	504.35	14.95	284.50	14.25	.....	176.11	1, 040.62
Ramsey b.....	116, 227	f 11, 611.98	5, 527.95	948.27	5, 130.61	1, 263.32	2, 504.64	1, 645.99	37, 225.94
Redwood.....	6, 488	83.63	33.40	.....	21.10	.....	.....	2.69	140.82
Renville.....	13, 153	750.00	1, 070.29	55.71	553.95	25.00	140.00	.....	2, 594.95
Rice b.....	24, 941	404.45	8, 258.46	215.04	401.20	125.66	333.85	.....	11, 970.56
Rock b.....	5, 239	694.20	171.31	66.15	130.00	101.70	13.50	.....	1, 236.87
St. Louis b.....	20, 453	3, 839.44	1, 664.08	83.25	1, 108.96	449.77	329.14	167.10	10, 518.16
Scott d.....	14, 181	322.93	1, 564.37	24.75	227.50	64.25	156.10	110.10	2, 795.48
Sherburne.....	5, 647	367.06	357.16	47.35	30.58	37.00	42.00	40.00	981.15
Sibley a.....	13, 126	286.60	1, 196.06	51.00	172.05	32.75	4.50	53.69	1, 761.86
Stearns a.....	28, 712	608.22	1, 143.15	4.40	445.40	32.50	108.80	.....	2, 291.86
Steele b.....	12, 783	525.81	776.09	15.85	151.50	43.75	.....	.....	1, 621.80
Stevens.....	4, 511	516.00	555.83	.....	386.00	14.00	.....	514.98	1, 966.31
Swift d.....	8, 373	319.00	335.27	28.00	127.90	17.00	60.40	164.16	1, 111.73
Todd.....	9, 643	289.86	533.99	.....	46.00	14.00	44.30	53.54	981.69
Traverse.....	2, 860	59.50	723.10	156.00	148.70	.....	150.00	.....	1, 087.30
Wabasha b.....	17, 999	69.50	2, 429.37	35.10	800.16	146.00	.....	.....	6, 972.92
Wadena d.....	3, 565	60.00	542.73	1.80	95.92	18.00	7.50	.....	735.95
Waseca.....	13, 842	850.28	2, 315.63	115.03	316.98	41.75	49.90	.....	3, 688.97
Washington b.....	29, 751	2, 707.25	5, 679.31	104.84	687.05	441.60	514.25	46.50	11, 462.61
Watonswan.....	5, 995	296.44	263.21	407.55	12.00	.....	3.00	47.88	1, 040.08
Wilkin.....	3, 734	\$398.59	\$198.41	\$6.00	\$193.90	\$59.30	\$9.00	.....	\$865.20
Winona b.....	31, 928	\$2, 656.17	5, 174.70	83.04	591.65	281.00	257.50	\$45.54	9, 089.60

TABLE "GG"—CONCLUDED.

COUNTIES.	Population Census of 1885.	Current Ex- penses of Poorhouse.	Boarding Paupers Outside Poorhouse.	Partial Support.	Transpor- tation of Paupers.	Medical Attendance and Medicine.	Burial Expenses.	Per Diem of County Commis- sioners.	Miscella- neous Expense.	Total Pauper Expense.
Wright <i>a</i> .....	22,790	.....	820.23	380.05	.....	55.75	39.75	3.00	173.03	1,421.81
Yellow Medicine.....	7,868	.....	879.32	989.14	3.50	333.27	54.50	169.66	2.75	2,452.14
Unreported counties estimated.....	11,845	.....	1,300.00	1,400.00	50.00	950.00	200.00	50.00	50.00	4,000.00
Totals.....	1,117,798	\$46,290.71	\$61,485.33	\$113,144.87	\$5,645.05	\$38,030.48	\$8,182.65	\$10,469.64	\$6,441.18	\$289,589.91

*a.* Town system. Paupers are a charge upon the several towns. *b.* Maintains a poorhouse. *c.* Unorganized. *d.* Undertown system part of the year  
*e.* No report received. *f.* Hospital expenses.

## TABLE "HH."

STATEMENT SHOWING THE EXPENDITURE PER INHABITANT FOR  
RELIEF OF THE POOR IN COUNTIES OF MINNESOTA FOR  
THE YEAR ENDING DEC. 31, 1886, BASED  
ON CENSUS OF 1885.

COUNTIES.	Current Expenses of Poor House.	Boarding Paupers Out- side Poor House.	Partial Support.	Transportation of Pau- pers.	Medical Attendance and Medicines.	Burial Expenses.	Per Diem of Officers.	Other Purposes.	Total Cost per Inhab- itant.
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Aitkin.....			13.6	.8	13.1	4.3		.9	32.7
Anoka.....	6.7	2.6	14.6		2.4	1.4	.5		28.2
Becker.....	8.8	4.9	4.1	1.4	7.1	1.3	.9	.4	28.9
Benton.....		8.2	10.5	.5	4.	.2	1.1		24.5
Big Stone.....			6.3		2.4	.5		2.1	11.3
Blue Earth.....	5.7		11.7	.7	3.8	.7	.2	.4	23.2
Brown.....		3.2	19.5		2.4	.5	.1	.3	26.
Carlton.....		11.5	8.5		1.4		.2		23.4
Carver.....		4.3	1.6	.3	.5	.3		.5	7.5
Chippewa.....	12.9	1.5	10.6		7.9	.5		.7	34.1
Chisago.....	5.		12.3		2.2		.6		20.1
Clay.....		12.7	13.4	.7	9.3	1.6	.3	.2	40.2
Cook.....									
Cottonwood.....		12.1	11.4		9.6	1.4			34.5
Crow Wing.....		6.1	4.2	1.	2.3	1.8	.1		15.5
Dakota.....	9.3	2.5	8.3		3.6	.9	.2	.2	25.
Dodge.....	7.7	3.3	13.7	.7	5.	.3	1.9		32.6
Douglas.....		5.	3.1	1.1	2.8	.2		.8	13.
Faribault <i>a</i> .....									
Fillmore.....	6.9	.4	6.7	.3	1.6	.2	.5	.1	16.7
Freeborn.....		6.8	3.4	8.	3.2	.7		.6	15.5
Goodhue.....	11.3	6.	28.5	.2	3.9	.6	.2	.6	51.1
Grant.....		16.9	19.8		3.1		1.5	.5	41.7
Hennepin.....	5.7	6.3	7.	.7	2.1	.9	1.9	2.	26.8
Houston.....	5.2		3.	.1	1.	.2	.2	.2	9.9
Hubbard.....			23.8		1.7			.2	25.7
Isanti.....		9.8	10.		3.8	.2	.2	.3	24.3
Jackson.....		3.7	5.4		2.	.3	.3	.7	12.4
Kanabec.....		17.	40.4	.2	15.9		2.1	5.7	81.3
Kandiyohi.....		4.2	4.2		1.7	.2		.3	10.6
Kittson.....		9.5	15.4	.1	4.6				29.6
Lac qui Parle.....		.6	3.1		3.2	2.1	.3	1.2	10.5
Lake.....		11.2			12.8				24.
Le Sueur.....		6.1	4.6	.8	1.2	.5		.6	13.8
Lincoln.....		8.4	.8		2.8	.6	.3	.6	13.5
Lyons.....		1.8	3.9	.5	3.5		1.		10.7
McLeod.....		7.1	8.6		1.4	.5	.7		18.3
Marshall.....		7.4	20.2	.1	16.2	1.1	1.3		46.3
Martin.....		5.9	2.9	.3	2.7		.1		11.9
Meeker.....		.5	16.9		4.2	.5	.4		22.5
Millie Lacs.....		12.4	17.8		8.8	2.7			41.7
Morrison.....		7.6	14.7		7.6	.5	.2		30.6
Mower.....	4.4	1.8	3.1	.2	1.6			.3	11.4
Murray.....		.7	6.5		2.		.1		10.2
Nicollet.....	2.2	2.4	6.		3.9	.3			14.8
Nobles.....		1.8	22.1	.1	3.6	.6	.2		28.4
Norman.....		1.3	15.9	.3	.9	.5			18.9
Olmsted.....		6.4	10.6	.4	3.	.6	.3		21.3
Otter Tail.....	9.	1.8	19.5	.6	5.7	.3	1.7		38.6
Pine.....		20.2	5.5		4.5	.6	.7		31.5
Pipestone.....		10.7	14.6	2.7	4.9	.7			33.6
Polk.....		4.3	17.7	.7	7.9	1.1	2.9	.5	35.1
Pope.....		1.7	10.2	.5	3.8	.3	.9		17.4
Ramsey.....	6.	9.	5.6	.6	3.	1.	1.8	1.4	28.4
Redwood.....	.5	8.	2.4		3.2	.3	.3		14.7

TABLE "HH"—CONTINUED.

COUNTIES.	Current Expenses of Poor House.	Boarding Paupers Out- side Poor House.	Partial Support.	Transportation of Pau- pers.	Medical Attendance and Medicines.	Burial Expenses.	Per Diem of Officers.	Other Purposes.	Total Cost per Inhab- itant.
Renville.....	4.7	9.4	.1	2.4	.2	.8	.....	17.6	
Rice.....	8.2	1.5	35.8	1.	.6	1.3	.7	49.1	
Rock.....	5.2	21.	6.2	2.5	5.	2.3	1.	43.5	
St. Louis.....	7.8	11.1	26.	.6	2.2	1.	1.4	51.1	
Scott.....	6.1	4.1	3.2	1.	3.2	.4	1.1	19.8	
Sherburne.....	6.7	2.4	.1	2.6	.6	.5	.....	12.9	
Sibley.....	2.9	6.9	.....	1.8	.....	.....	.4	11.6	
Stearns.....	2.8	4.4	.7	2.5	.....	.....	.4	10.8	
Steele.....	11.1	8.	.4	1.3	.4	1.3	.6	23.1	
Stevens.....	.....	9.4	.....	6.6	.....	.....	.....	24.	
Swift.....	11.4	15.2	.2	8.9	.6	.8	.....	37.1	
Todd.....	1.8	1.7	.3	.4	.4	.2	.8	8.6	
Traverse.....	1.1	18.9	.2	25.1	.....	.....	.....	45.3	
Wabasha.....	16.7	13.5	.4	4.1	.4	.7	.....	35.8	
Wadena.....	.....	5.7	.9	3.6	1.3	.6	1.	35.7	
Waseca.....	.....	3.3	.3	2.3	.1	.4	.....	25.	
Washington.....	6.7	9.7	.6	2.	1.6	1.2	.....	42.5	
Watonswan.....	.....	2.	2.4	.....	2.7	.1	.....	7.2	
Wilkin.....	.....	12.5	.3	11.1	1.3	2.	.....	34.5	
Winona.....	9.	17.7	.3	1.9	.5	.5	.....	29.9	
Wright.....	.....	2.	2.9	.....	.2	.....	.....	5.3	
Yellow Medicine.....	.....	4.4	7.5	.7	3.4	.2	.....	16.2	
Averages.....	4.3	4.9	10.6	.4	3.2	.6	.9	.7	25.6

a—No report.



TABLE "II."

STATEMENT SHOWING THE EXPENDITURE PER INHABITANT FOR  
RELIEF OF THE POOR IN COUNTIES OF MINNESOTA FOR  
THE YEAR ENDING DEC. 31, 1887, BASED  
ON THE CENSUS OF 1885.

COUNTIES.	Current Expenses of Poor House.	Boarding and Nursing Pau- pers Outside Poor House.	Partial Support.	Transportation of Paupers.	Medical Attendance and Medicine.	Burial Expenses.	Per Diem of Officers.	Other Purposes.	Total Cost per Inhabitant.
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Aitkin .....	9.6	6.4	.6	.9	1.9				19.4
Anoka .....	6.8	1.1	16.7	.2	1.7	1.	.8		28.3
Becker .....	4.8	5.5	2.	.4	9.4	1.2	.5		23.8
Benton .....		3.6	3.7		.6	.7	.1	.5	9.2
Big Stone .....		3.5	5.2	.1	5.5	.4			14.6
Blue Earth .....	5.8	2.2	8.2	.4	2.8	.6	.5		20.5
Brown .....		.4	18.3	.1	4.9	.3	.2	1.	25.2
Carlton .....		8.	24.9		17.	1.4	.3		51.6
Carver .....		2.2	6.2		1.3			.1	9.8
Chippewa .....	12.8	17.3	7.6	2.5	8.1	.5			48.8
Chisago .....	4.6	.9	10.9	.5	1.9	.4	.6		19.8
Clay a .....									
Cook .....									
Cottonwood .....	10.5	5.9	17.		6.5	.5			40.4
Crow Wing .....		8.9	7.1	.6	2.7	1.			20.3
Dakota .....	7.7	1.7	5.6	.5	3.4	.5	.2	.1	19.7
Dodge .....	6.4	4.1	10.	.3	7.5	1.7	1.3		31.3
Douglas .....									
Faribault .....	2.7	3.4	7.9		3.8	.6	.1		18.5
Fillmore .....	1.9	.8	6.9		2.3	.4	.3	.4	13.
Freeborn .....		6.6	4.8	.6	2.9	.6	.1	.6	16.2
Goodhue .....	7.1	4.2	33.4	.2	3.8	.6	.6		49.9
Grant .....	12.5	19.2			9.6		1.5	.2	43.
Hennepin .....	5.4	9.4	7.3	1.1	2.1	1.3	2.	.8	29.4
Houston .....	5.3	.1	1.2		.9	.1	.2	.7	8.5
Hubbard .....		.6							.6
Isanti .....		5.8	15.	.5	3.2	.2	.6		25.3
Jackson .....		3.2	9.4	.4	3.	.6	.1	.5	17.2
Kanabec .....		15.5	30.6	2.2	12.7	.6		6.4	68.
Kandiyohi .....		4.3	3.5	.5	2.9	.5	.3	2.1	14.1
Kittson .....		9.8	9.3	4.4	3.1	.7		.6	27.9
Lac qui Parle .....		.8	5.		1.9	.9	.5		9.1
Laks .....		13.3		.3					13.6
Le Sueur .....		6.2	5.	.3	1.2	1.	1.3		14.1
Lincoln .....		6.4	2.7		2.5	.6	.5		12.7
Lyons .....	1.4	3.1	8.2	.1	.3	.4	1.5		17.7
McLeod .....		10.1	9.1	.4	4.9	.1	.1	.1	27.5
Marshall .....		5.7	10.1	.4	15.4	.9	2.2	.5	35.2
Martin .....		8.	2.8	.5	1.2		.8		13.3
Meeker .....		1.2	22.4	.8	3.2	.5	.3		28.4
Mille Lacs .....		11.2	23.8		7.8				42.8
Morrison .....	10.8	5.5	15.6		6.9		.2	.7	39.7
Mower .....	5.	2.8	2.8		2.6	1.		.3	14.5
Murray .....			13.4		.3		.6		14.3
Nicollet .....	4.3	3.9	7.8	.2	3.4	.2		.5	20.3
Nobles .....		1.	25.3	.5	2.8		.4		30.
Norman .....		4.5	8.7	1.2	6.				20.4
Olmsted .....	5.1		9.7	.2	4.2	.3	.4		19.9
Otter Tail .....	7.4	1.7	17.8	.3	8.	.3	1.1	.8	37.3
Pine .....		19.7	4.9		2.3	1.4	.5		28.8
Pipestone .....		7.3	23.8	3.6	11.6	1.7			48.
Polk .....		3.1	12.5	.2	5.	.2	1.7		22.7
Pope .....		.5	5.8	.2	3.3		.2	2.	12.

TABLE "II"—CONTINUED.

COUNTIES.	Current Expenses of Poor House.	Boarding and Nursing Paupers Outside Poor House.	Partial Support.	Transportation of Paupers.	Medical Attendance and Medicine.	Burial Expenses.	Per Diem of Officers.	Other Purposes.	Total Cost per Inhabitant.
Ramsey.....	7.4	10.	4.8	.8	4.4	1.1	2.1	1.4	32.
Redwood.....	1.3		.5		4.3				2.2
Renville.....		5.7		8.1	4.2	.2	1.1		19.7
Rice.....	9.	1.6	31.1	.9	1.6	.5	1.3		48.
Rock.....	2.4	13.3	3.3	1.3	2.3	1.9	.3		24.8
St. Louis.....	14.1	18.8	8.1	.4	5.4	2.2	1.6	.8	51.4
Scott.....	2.2	2.4	11.	.2	1.6	.4	1.1	.8	19.7
Sherburne.....		6.5	6.3	.9	1.6	.7	.7	.7	17.4
Sibley.....		2.	9.1	.4	1.3	.3		.3	13.4
Stearns.....		2.1	4.		1.6	.1		.2	8.
Steele.....	4.1		6.1	.1	1.2	.4	.8		12.7
Stevens.....		11.5	23.7		8.1	.3			43.6
Swift.....		3.8	4.7	.3	1.6	.2	.7		11.3
Todd.....		3.	5.6		.5	.1	.5	.5	10.2
Traverse.....		2.1	25.3	5.4	5.2				38.
Wabasha.....	18.5	.4	13.5	.2	4.5	.8	.8		38.7
Wadena.....		1.7	15.2		2.7	.5	.1		20.4
Waseca.....		6.4	17.3	.8	2.4	.3	.4		27.6
Washington.....	4.4	9.1	19.1	.3	2.2	1.5	1.7	.2	38.5
Watsonwan.....		4.8	4.3	.4	6.8	.2		.8	17.3
Wilkin.....		10.7	5.3	.2	5.2	1.6	.2		23.2
Winona.....	8.4		16.2	.3	1.8	.9	.8	.1	28.5
Wright.....		3.6	1.5		.3	.2		.6	6.2
Yellow Medicine.....		11.2	12.6		4.5	.7	2.2		31.2
Unreported counties estimated.....		11.1	11.9	.4	8.	1.6	.4	.4	33.8
Averages.....	4.1	5.5	10.1	.6	3.4	.7	.9	.6	25.9

a—No report.

TABLE "JJ."  
EXPENSES OF PAUPERISM IN THE TWENTY-SIX MOST POPULOUS COUNTIES OF MINNESOTA FOR 1886,  
ARRANGED IN THE ORDER OF POPULATION.

COUNTIES.	Population Census of 1885.	Total Pauper Expenses.	DISTRIBUTION OF PAUPER EXPENSES PER INHABITANT OF THE COUNTY.							
			Poor Houses, Boarding and Hospital Exp. Cents.	Partial Support, Cents.	Transporta- tion of Paupers. Cents.	Medical At- tendance, Medicines, Cents.	Burial Expenses, Cents.	Per diem of Officers, Cents.	Other Purposes, Cents.	Total Cost per Inhabit'l. Cents.
Brown	13,976	\$3,618.03	3.2	19.5	.....	2.4	.5	.1	.3	26.
Scott	14,181	2,811.40	10.2	3.2	.....	3.2	.4	.7	1.1	19.8
Meeker	14,501	3,012.93	5.	16.9	1.	2.4	.5	.4	.....	20.7
Faribault	15,163	2,500.00	.....	7.3	.....	3.6	.3	.....	.....	16.5
Mower b	15,277	1,691.88	6.2	3.1	.2	1.6	.....	.3	.....	11.4
McLeod	15,311	2,803.10	7.1	8.6	.....	1.4	.5	.7	.....	18.3
Houston b	15,482	1,382.18	5.2	3.	.1	.....	.2	.2	.....	9.
Carver a	15,965	1,204.70	4.3	1.6	.3	.5	.3	.....	.5	7.5
Freeborn a	17,364	2,692.55	6.8	3.4	.8	3.2	.7	.....	.6	15.5
Wabasha b	17,999	6,443.78	16.7	13.5	.4	4.1	.4	.7	.....	35.8
Le Sueur a	18,559	2,562.01	6.1	4.6	.8	1.2	.5	.....	.6	13.8
Dakota b	18,590	4,650.37	11.8	8.3	.....	3.6	.9	.2	.....	25.
St. Louis b	20,453	10,461.24	18.9	26.	.6	2.2	1.	1.4	.1	51.1
Olmsted b	20,518	4,370.57	6.4	10.6	.4	3.	.6	.3	.....	21.3
Wright a	22,790	1,212.95	2.	2.9	.....	2.2	.....	.....	.....	5.3
Polk	23,475	8,235.73	4.3	17.7	.7	7.9	1.1	2.9	.5	35.1
Rice b	24,941	12,373.40	9.7	35.8	.....	1.	.6	1.3	.7	49.1
Blue Earth b	26,462	6,139.00	5.7	11.7	.7	3.8	.7	.2	.4	23.2
Fillmore b	26,677	4,455.75	7.3	6.7	.3	1.6	.2	.5	.....	16.7
Stearns a	28,712	3,112.26	2.8	4.4	.7	2.5	.....	.....	.4	10.8
Washington b	29,751	12,639.06	16.4	20.7	.6	2.	1.6	1.2	.....	42.5
Goodhue b	31,113	15,896.33	17.3	28.5	.2	3.9	.6	.2	.6	51.1
Otter Tail b	31,820	12,166.06	10.8	19.5	.6	5.7	.3	1.7	.....	38.6
Winona b	31,928	9,547.56	9.	17.7	.3	1.9	.5	.5	.....	29.9
Ramsey b	116,227	32,935.71	15.	5.6	.6	3.	1.	1.8	1.4	28.1
Hennepin a b	148,737	39,949.76	12.	7.	.7	2.1	.9	1.9	2.	26.8
Total for twenty-six counties.....	775,672	\$208,868.31	.....	.....	.....	.....	.....	.....	.....	26.9
Total for state.....	1,117,798	\$285,671.28	9.2	10.6	.4	3.2	.6	.9	.7	25.5
a Town System. b Has a county poor house.										

a Town System. b Has a county poor house.

TABLE "KK."  
EXPENSES OF PAUPERISM IN THE TWENTY-SIX MOST POPULOUS COUNTIES OF MINNESOTA FOR 1887,  
ARRANGED IN THE ORDER OF POPULATION.

COUNTIES.	Population Census of 1885.	Total Pauper Expenses.	DISTRIBUTION OF PAUPER EXPENSES PER INHABITANT OF THE COUNTY.							Other Purposes. Cents.	Per Diem of Officers. Cents.	Burial Expenses. Cents.	Medical At- tendance, Medicine. Cents.	Transporta- tion of Paupers. Cents.	Poorhouse, Boarding and Hospital Exp. Cents.	Partial Support. Cents.	Total Cost per Inhabit't. Cents.	
			Poorhouse, Boarding and Hospital Exp. Cents.	Partial Support. Cents.	Transporta- tion of Paupers. Cents.	Medical At- tendance, Medicine. Cents.	Burial Expenses. Cents.	Per Diem of Officers. Cents.	Other Purposes. Cents.									
Browna.....	13,976	\$3,521.89	.4	18.3	.1	4.9	.3	.2	1.	25.2								25.2
Scott a.....	14,181	2,795.48	4.6	11.	.2	1.6	.4	1.1	.8	19.7								19.7
Meeker.....	14,601	4,121.37	1.2	22.4	.8	3.2	.5	.3		28.4								28.4
Faribault.....	15,163	2,805.69	6.1	7.9		3.8	.6		.3	18.5								18.5
Mower b.....	15,277	2,172.17	7.8	2.8		2.6			.3	14.5								14.5
McLeod.....	15,311	4,213.82	10.1	9.1	.4	4.9	.1	.2	.1	27.5								27.5
Houston b.....	15,482	1,323.87	5.4	1.2		.9			.7	8.5								8.5
Carver a.....	15,965	1,573.96	2.2	6.2		1.3			.1	9.8								9.8
Freeborn a.....	17,364	2,815.58	6.6	4.8		2.9	.6		.6	16.2								16.2
Wabasha b.....	17,999	6,972.92	18.9	13.5	.6	4.5	.8		.8	38.7								38.7
Le Sueur a.....	18,559	2,628.31	6.2	5.	.3	1.2	.1	1.3		14.1								14.1
Dakota b.....	18,590	3,654.99	9.4	5.6	.5	3.4	.5	1.6	.1	19.7								19.7
St. Louis b.....	20,453	10,518.16	32.9	8.1	.2	5.4	2.2	1.6	.8	51.4								51.4
Olmsted b.....	22,790	4,078.23	5.1	9.7		4.2	.3	.4		19.9								19.9
Wright a.....	23,475	5,318.62	3.1	1.5		5.	.2	1.7	.6	22.7								22.7
Polk.....	24,941	11,970.56	10.6	33.1	.9	2.3	.6	.5		48.								48.
Rice b.....	26,462	5,424.93	8.	8.2	.4	2.3	.4	.3		20.5								20.5
Blue Earth b.....	26,677	3,483.40	2.7	6.9		1.6	.1	.5	.2	13.								13.
Fillmore b.....	28,712	2,291.86	2.1	4.		2.3		.3	.4	8.								8.
Stearns a.....	29,751	11,462.61	13.5	19.1	.3	2.2	1.5	1.7	.2	38.5								38.5
Washington b.....	31,113	16,471.62	11.3	33.4	.2	3.8	.6	.6	.8	49.9								49.9
Goodhue b.....	31,520	11,748.43	9.1	17.8	.3	8.	.3	1.1	.1	37.3								37.3
Otter Tail b.....	31,928	9,089.60	8.4	16.2	.3	1.8	.9	.8	.1	28.5								28.5
Winona b.....	31,928	9,089.60	8.4	16.2	.3	1.8	.9	2.1	1.4	32.								32.
Ramsey b.....	116,227	37,225.94	17.4	4.8	.8	2.1	1.1	2.	.8	29.4								29.4
Hennepin a b.....	148,737	43,763.93	14.8	7.3	1.1	2.1	1.3			27.3								27.3
Total for twenty-six counties.....	775,672	\$211,869.75	9.6	10.1	.6	3.4	.7	.9	.6	25.9								25.9
Total for state.....	1,117,798	\$289,589.91																

a Town system. Paupers are a charge upon the several towns. b Maintains a county poor house.



TABLE "LL."

COMPARATIVE STATEMENT OF PAUPER EXPENSES IN COUNTIES  
SPENDING MORE THAN 30 CENTS OR LESS THAN 12 CENTS  
PER INHABITANT, FOR THE YEAR 1887. (BASED ON CEN-  
SUS OF 1885.)

COUNTIES.	Population, Cen- sus of 1885.	Cents per Inhabi- tant, 1887.	Cents per Inhabi- tant, 1886.	Cents per Inhabi- tant, 1885.	Cents per Inhabi- tant, 1883-4.
Kanabec.....	1, 109	68.	81.3	50.	.....
Carlton.....	3, 189	51.6	23.4	35.9	.....
St. Louis.....	20, 453	51.4	51.1	49.9	36.2
Goodhue.....	31, 113	49.9	51.1	45.4	56.2
Chippewa.....	6, 561	48.8	34.1	24.9	23.9
Pipestone.....	3, 956	48.	33.6	14.4	15.6
Rice.....	24, 941	48.	49.1	35.3	28.7
Stevens.....	4, 511	43.6	24.	36.3	.....
Grant.....	5, 197	43.	41.7	32.8	22.6
Mille Lacs.....	1, 897	42.8	41.7	72.2	25.4
Cottonwood.....	5, 894	40.4	34.5	10.5	9.6
Morrison.....	9, 406	39.7	30.6	22.6	17.
Wabasha.....	17, 999	38.7	35.8	30.	43.5
Washington.....	29, 751	38.5	42.5	38.	35.5
Traverse.....	2, 860	38.	45.3	16.2	23.
Otter Tail.....	31, 520	37.3	38.6	40.8	30.2
Marshall.....	5, 560	35.2	46.3	33.3	30.6
Ramsey.....	116, 227	32.	28.	28.	21.9
Dodge.....	10, 487	31.3	32.6	84.	27.7
Yellow Medicine.....	7, 863	31.2	16.2	23.5	29.4
General average in the State.....	1, 117, 798	25.9	25.6	24.	21.9
Swift <i>b</i> .....	8, 373	11.3	37.1	25.3	21.
Todd.....	9, 643	10.2	8.6	11.6	20.5
Carver <i>b</i> .....	15, 965	9.8	7.5	10.3	8.9
Benton.....	44, 721	9.2	24.5	20.4	8.5
Lac qui Parle.....	7, 842	9.1	10.5	11.8	.....
Houston.....	15, 482	8.5	9.	6.8	9.2
Stearns <i>b</i> .....	28, 712	8.	10.8	10.5	8.4
Wright <i>b</i> .....	22, 790	6.2	.....	8.4	8.
Redwood.....	6, 488	6.2	14.7	18.	22.4
Cook.....	322	.....	.....	.....	.....

- a.* Small pox.  
*b.* Town system.  
*c.* Reduced by sales of farm produce.

TABLE "MM."

## STATEMENT OF EXPENDITURES FOR MEDICAL ATTENDANCE AND MEDICINES FOR THE POOR IN MINNESOTA.

COUNTIES.	YEAR ENDING DEC. 31, 1887.				YEAR ENDING DEC. 31, 1886.		YEAR ENDING DEC. 31, 1885.		YEAR ENDING SEPT. 30, 1883.	
	Physicians' Salaries.	Fees and Medicines.	Totals.	Cents per Inhabitant.	Cents per Inhabitant.	Cents per Inhabitant.	Cents per Inhabitant.	Cents per Inhabitant.	Cents per Inhabitant.	Cents per Inhabitant.
Aitkin.....		\$12.45	\$12.45	.9	13.1	6.5	2.5			
Anoka.....	\$170.00		170.00	1.7	2.4	6.	16.8			
Becker.....	700.00		700.00	9.4	7.1	3.7	4.5			
Benton.....		30.00	30.00	.6	4.	4.	1.9			
Big Stone.....		255.45	255.45	5.5	2.4	2.5	2.3			
Blue Earth.....		30.00	728.23	2.8	3.8	3.	3.2			
Brown.....	698.23	165.25	863.48	4.9	2.4	15.3	7.8			
Burns.....	520.00	542.30	1,062.30	17.	5.					
Carlton.....		201.50	201.50	1.3	5.5	.8				
Carver.....		531.88	531.88	8.1	7.9	5.6	2.5			
Chippewa.....		186.00	186.00	1.9	2.2	.8	1.3			
Chisago.....			a		9.3		6.1			
Clay.....		383.70	383.70	6.5	9.6					
Cottonwood.....			240.80	2.7	2.3	1.4	1.1			
Crow Wing.....			622.81	3.4	3.6	2.5	1.6			
Dakota.....		62.81	787.38	7.5	5.6	9.	4.3			
Dodge.....		634.38	160.70	1.2	2.8	2.5	3.1			
Douglas.....		160.70	577.60	3.8		2.7	2.3			
Faribault.....		577.60	623.82	2.3		1.7	2.			
Fillmore.....		93.25	596.61	2.9	1.6	1.2				
Freeborn.....	530.57	506.61	1,037.18	3.8		3.7	12.3			
Goodhue.....			1,176.21	9.6	3.1	4.1	8.6			
Grant.....	1,176.21	297.50	1,473.71	2.1	2.1	1.7	2.7			
Hennepin.....	3,140.00	40.35	3,180.35	9.	1.	5.4	1.6			
Houston.....			45.00	5.3	1.7	2.5				
Hubbard.....			227.67	3.2	3.8	1.3	1.9			
Isanti.....		127.67	183.67	3.	2.	2.5	5.3			
Jackson.....		183.67	141.45	12.7	15.9		1.4			
Kanabec.....		141.45	374.65	2.9	1.7		9.3			
Kandiyohi.....		374.65	106.35	3.1	4.6	4.				
Kittson.....		106.35		1.9	3.2	3.9	1.7			
Lac qui Parle.....		147.90	147.90		12.8		42.			

	217.65	217.65	217.65	1.2	1.2	1.2
Le Sueur.....	100.00	10.30	110.30	2.5	2.8	3.7
Lincoln.....	232.92		232.92	3.5	3.6	3.7
Lyon.....	689.55	82.97	752.52	4.9	1.4	3.6
McLeod.....	600.00	255.90	855.90	15.4	16.2	6.7
Marshall.....	73.25		73.25	1.2	2.7	2.1
Martin.....	275.00	183.65	458.65	3.2	4.2	2.4
Meeker.....		146.70	146.70	7.8	8.8	3.4
Mille Laacs.....	275.00	387.45	662.45	6.9	9.4	4.2
Morrison.....	161.00	232.63	393.63	2.6	1.6	1.1
Mower.....		14.45	14.45	3.3	2.2	3.8
Murray.....		454.40	454.40	3.4	3.9	3.9
Nicollet.....			159.00	2.8	3.6	3.1
Nobles.....	159.00		159.00	6.6	4.5	7.1
Norman.....	420.00	82.50	502.50	3.9	4.7	2.2
Olmsted.....	250.00	609.35	859.35	4.2	3.7	4.7
Other Tail.....	300.00	2,211.27	2,511.27	8.4	5.7	5.4
Pine.....		50.00	50.00	2.3	4.5	7.9
Pipestone.....		460.03	460.03	11.6	4.9	6.1
Polk.....		339.70	339.70	5.3	7.9	3.4
Pope.....	389.50		284.50	3.3	3.8	4.5
Ramsey.....		630.61	630.61	4.4	3.8	6.3
Redwood.....	4,500.00	21.10	21.10	3.3	2.2	1.2
Renville.....	480.00		553.95	4.2	2.4	4.4
Rice.....	351.00		401.20	1.6	1.4	2.3
Rock.....	120.00	50.20	120.00	2.3	2.1	1.5
St. Louis.....	1,108.96		1,108.96	5.4	3.6	4.6
Scott.....	187.50		227.50	1.6	2.2	2.8
Sherburne.....		40.00	227.50	1.6	3.2	3.7
Sibley.....		90.58	90.58	1.6	3.2	2.4
Sibley.....	172.05		172.05	1.3	2.6	1.8
Stearns.....	445.40		445.40	1.6	2.5	1.6
Steele.....	150.00	1.50	151.50	1.2	1.3	1.2
Stevens.....	300.00	65.00	365.00	8.1	6.6	6.7
Swift.....		127.90	127.90	1.6	8.9	7.6
Todd.....	25.00		46.00	5.5	4.4	2.7
Traverse.....		148.70	148.70	5.2	25.1	7.7
Wabasha.....		125.16	800.16	4.5	4.1	3.8
Wadena.....	675.00		800.16	2.5	3.6	11.9
Waseca.....		95.92	95.92	2.4	2.3	2.5
Washington.....	300.00		316.38	2.2	2.2	2.8
Watson.....	400.00	267.05	667.05	6.8	2.7	5.2
Wilkin.....		407.55	407.55	5.2	11.1	2.9
Winona.....	150.00	43.90	193.90	1.8	1.9	4.4
Wright.....	591.65		591.65	1.3	1.9	2.4
Yellow Medicine.....	250.00	55.75	305.75	4.5	5.5	2.2
Unreported counties, estimated.....	800.00	103.27	903.27	9.1	3.4	4.8
Totals.....	\$23,079.64	\$14,950.84	\$38,030.48	3.4	3.2	2.5
						3.8

*a.* No report.

## THE COUNTY POORHOUSES.

(Alphabetically by Counties.)

*Anoka county* poorhouse is not owned by the county. The county pays Mrs. D. Starkey, a resident of Anoka, by the week for keeping paupers in her own house. This method of contracting paupers has worked badly in some of the older states, but in Anoka county the plan has been very satisfactory.

The house was found clean, paupers comfortable, rag carpets on the floors and good comfortable beds. Mrs. Starkey was apparently taking conscientious care of her wards.

*Becker county* has sold the poor farm which proved an expensive luxury as shown by our previous reports. The county commissioners submitted plans for a new poorhouse, which was built in the outskirts of the village of Detroit, in 1888. The plans for this poorhouse were prepared with great care and were duly submitted to the board of corrections and charities. The following letter was transmitted to the board of county commissioners by the secretary.

ST. PAUL, April 20, 1889.

*To the Honorable Board of Commissioners of Becker County, Detroit, Minn.,*

GENTLEMEN: The plans for the new poorhouse for Becker county were submitted last week by the architect, Mr. C. C. Yost.

The law requires that such plans shall be submitted to the state board of corrections and charities, but learning that your board is anxious to commence operations I forwarded the plans to Gen. C. H. Berry, of Winona, and to Hon. H. R. Wells, of Preston, members of our committee on poorhouses, for their suggestions. The recommendations of that committee will undoubtedly be adopted by this board.

Gen. Berry has written with reference to the plans but I have



not yet heard from Mr. Wells. These plans will in the main undoubtedly receive the approval of the board, as they provide for the separation of the sexes, bathing facilities, etc., and for the comfort of the inmates generally. They also provide for the convenience of the overseer's family as well as can be done in a small institution.

There is one feature of the plan, however, which will, in my judgment, prove unsatisfactory as the time goes on. I refer to the fact that the kitchen and dining room are located in the basement. The objections to this plan are as follows: First, the inmates' dining room will necessarily be imperfectly lighted and liable to dampness, as has been found the case in the poorhouse in Blue Earth county. Second, some of the inmates of a poorhouse are almost invariably cripples or sick persons and this arrangement will make it necessary to carry meals up stairs, making considerable extra work for the people of the house. From my experience of public institutions I am convinced that it is always undesirable to locate living rooms in a basement. The board of charities and reform of Wisconsin has prepared a plan for a small county poorhouse in which it was made a special feature that the dining room and kitchen should be on the ground floor, and in approving your plan I am satisfied that this board will file a protest against this feature of the plan.

I am of the opinion that your board will be well satisfied with the plan of having the poorhouse at the county seat. Where poorhouses are located in the country it is difficult to exercise proper supervision, especially in winter.

On the whole, your poorhouse will be the best small poorhouse in the state with the exception of the one in Blue Earth county and perhaps the one in Dodge county.

Very respectfully, your obedient servant,

H. H. HART,

*Secretary.*

*Brown county* has a poor farm consisting of 160 acres, of which 40 acres are improved. The farm is valued at \$1,000.

*Blue Earth county* poorhouse shows a reduction in the average number of paupers. The poorhouse was found in good condition and the inmates apparently well cared for. It would be a decided improvement if this poorhouse were nearer the city of Mankato.

*Chippewa county* poorhouse continues under the care of Robert

Starbeck who rents the farm and receives three dollars per week for the board of each inmate. The longest stay of any one pauper was sixty-nine days. The total number of inmates during the year was five. This county does not need a poorhouse.

*Chisago county* poorhouse is run on the contract system. Oscar Erickson, the overseer, receives two dollars and a half per week for each pauper boarded. Average number of paupers for 1887 was only four. This poorhouse is run on a cheap plan and the county gets all that it pays for, but it ought to pay more or go out of the poorhouse business.

*Cottonwood county* commissioners submitted plans for a county poorhouse in 1887. After examining the plans the board of corrections and charities voted not to approve them, but advised the county that in their judgment it was inexpedient for the county to build a poorhouse at that time. In 1888 the county commissioners submitted a new plan for a poorhouse which was similar to the former plan. The county commissioners modified their specifications and decided to build.

The following letter was addressed to the chairman of the board of county commissioners:

ST. PAUL, MINN., March 10, 1888.

*Hon. Chas. Chadderdon, Chairman County Commissioners, Windom, Minn.,*

DEAR SIR: On Tuesday last I examined the plans and specifications on which you have advertised for bids for your poorhouse building.

You have already submitted your plans to the state board of corrections and charities according to law, and have, as I am informed, taken action upon their recommendations. I shall now offer informally some suggestions respecting your present specifications.

On examining the plans with Mr. Chadderdon he informs me that there is a mistake in the location of the staircase. That mistake should be corrected. The specifications on which you have advertised for bids are defective in several particulars.

*First*—They do not specify quality of material, except four doors shall be of second quality. The quality should be specified of lumber, shingles, lime, glass, window sash, etc., etc.

The specifications do not describe the construction of the building sufficiently; for example, it is not specified how deep

the foundation shall go, what shall be the height of the cellar, what shall be the method of construction of the walls. It is not specified whether there shall be any plastering except on the staircases, nor how many coats of plastering, nor what shall be the pitch of the roof, etc., etc. The specifications say that the main building shall be twenty feet high, and the addition ten feet high, but they do not state whether there shall be twenty foot posts or twenty feet in the gable. The specifications do not call for any chimneys whatever. There should be chimneys built from the ground. They do not provide for the use of any building paper. The walls and floors should be lined with building paper. The specifications do not describe the construction of the floors, and do not provide whether the floors shall be of surfaced lumber, or matched flooring, or of what. They do not describe the construction of the doors, as to whether they shall be panel doors, or made of flooring, or otherwise. The specifications do not describe any door fastenings, locks, hinges, knobs, window fastenings, or indeed hardware of any kind, neither do the specifications call for interior painting.

Mr. Chadderdon informed me that when the contract was made the requirements would be specified in detail, but it seems to me that it is equally as important that the specifications should describe the work in detail, otherwise how can an intelligent bid be made? The bidder needs to know whether he is to use first, second or third quality of shingles, what kind of sills and plates he is to use, etc., etc.

The specifications should state that the "plans are hereby made a part of the specifications."

I would suggest that a special meeting of the board be called immediately, and that the specifications be amended.

Please advise me by return mail what your view is of the matter, as I may wish to take some further action.

A copy of this letter is addressed to each member of your honorable board.

Very respectfully,

H. H. HART,  
*Secretary.*

The county commissioners modified their specifications and proceeded to build. The new poorhouse fronts the south. The first floor consists of a family sitting room 14x14, two family bed rooms each 8x12 with closets, superintendent's dining room



14x14, kitchen 12x16, pantry 7x10, bath room 6x7, paupers' dining room 14x14, paupers' bedrooms 8x12 and 10x14.

The second floor is divided into separate departments for the two sexes; the men's dormitory consists of a bedroom 14x30 with a closet 5x8, bedrooms 8x10 and 12x14. The women's department consists of a dormitory 13x13 and a bed room 11x11. There is an attic which is used for storage. The building is framed with 2x6 inch studding, is back plastered, sheathed, covered with tar paper, and clapboarded. The kitchen and superintendent's dining room are wainscoted. The contract price for the building was \$400, the county to furnish all materials. The building has a good foundation but the plastering is very poor. The total cost was about \$2,000, estimated capacity, 12. This poorhouse was built in advance of the needs of the county. It was opened September 27th, since which time the average number of inmates has been 3½.

*Crow Wing* purchased a poor farm in 1888 at a cost of \$3,000. The poorhouse will not be opened until Dec. 1, 1888. The county is erecting buildings at a cost of \$3,500.

*Dakota county* poorhouse has been satisfactorily managed under its present administration. Average number of inmates for 1887, 12; average weekly cost per inmate, \$2.22.

*Dodge county* poorhouse was found in excellent condition. The house is clean, well kept and suitable provision made for the separation of the sexes. The poorhouse does credit to the county and to the superintendent. Average number of inmates for 1887, 6; average weekly cost per inmate, \$2.09.

*Faribault county* formerly had a poor farm but sold it some years ago. In 1887 they had a contract with William Dornfeld, at Minnesota Lake, to board homeless paupers at from \$2 to \$3 per week, the county to pay for medical aid and clothing for such paupers. Mr. Dornfeld agrees to board all who are sent him.

This is called a county poorhouse but does not strictly come within the title.

*Fillmore county* poorhouse showed decided improvement in the condition of the house and the provision for the comfort of the inmates, but the old building can not be made convenient or comfortable, and should be replaced at an early day by a new one. New floors have been laid in the mens' sitting room and in the kitchen and dining room. Water from a spring runs through



the house and through the barn. New crockery has been provided for the house. A separate building has been provided for female patients 14x12, with a separate room 8x14. This building is ceiled with wood and is liable to become a nuisance from vermin. The paupers and the superintendent's family fare alike in the matter of food.

*Fillmore county* poorhouse is remarkable for the stability of its population as contrasted with the poorhouse population of some newer counties.

Average number of inmates for 1887, 6; average weekly cost per inmate, \$1.56. The low per capita cost is due to the fact that the farm contributes largely to the support of the inmates.

*Freeborn county* has had a poor farm for a number of years. There is a movement on foot to restore the county system of caring for the poor and to build a county poorhouse.

*Goodhue county* retains the objectionable contract system of caring for the poor, whereby the board of paupers is hired out to the overseer at \$2.25 per week. It is but just to say that the house was found in good condition, the paupers apparently well cared for and very little complaint was made. Nevertheless the system is open to abuse and ought to be changed.

The beds were very clean and the storeroom has been provided with clothing, which is well kept. The inmates are kept locked out of the bedrooms in the daytime, unless when sick, and the men's sitting room was clean and comfortable.

The poorhouse had a narrow escape from being burned down, the timbers having taken fire from the chimney.

*Goodhue county* hospital was found in good condition. The average number during 1888 was 6; the weekly average cost per patient was about \$4.75.

*Hennepin county* poorhouse is efficiently managed. The house was in good condition and the inmates apparently well cared for. A charge is made back upon the several towns of \$2 weekly for each inmate. The report of the overseer shows the average cost for the year 1887 as \$1.90 per week for each inmate. This however, does not include all disbursements for the maintenance of the poorhouse. The weekly cost per inmate based upon the county auditor's report of expenditures for the benefit of the poor farm would be \$2.77 per week, which shows a marked reduction from the former expense of maintaining this poorhouse.

The city of Minneapolis has established a city hospital which has not yet been visited.

*Houston county* poorhouse was visited in the morning before breakfast. The house had been newly painted, a new roof had been put on, a new floor provided in the kitchen and pantry, a new chimney built and new plastering in the second story; the cellar wall had been repaired; blankets and sheets were clean, but the men's sleeping rooms were not up to the standard and the beds were infested with bed bugs. There were seven inmates who appeared to be comfortable and well fed. The house was reasonably clean, with the exception noted. The average number of inmates for 1887 was 6; average weekly cost per capita, \$2.58.

*Lac qui Parle county* has a poor farm and it is understood that the county expect to open a poorhouse at an early date. It is probable that experience will not justify the maintenance of the poorhouse.

*Lyon county* like several other counties found the keeping of a poor farm a source of expense and has gone on to the contract system of paying the overseer for boarding paupers by the week. The receipts from the farm nearly meet the current expense, nevertheless the county gets small return on its investment.

*Marshall county* has a poorhouse valued at \$2,500.

*Martin county* poor farm remains unimproved.

*Mower county* poorhouse was found in good condition. The house was cleaner than the average, beds and bedding clean, furniture moderately good; paupers looked clean and comfortable. The bill of fare was reported as follows: Breakfast, bread and butter, coffee with sugar and milk, potatoes, and occasionally meat. Dinner, potatoes, meat, vegetables, pie or pudding. Supper, bread and butter, cakes and fried potatoes. The fare appeared to be the same as that of farmers generally.

The county keeps 17 cows and sends the milk to a neighboring cheese factory. The overseer receives \$365 per year and board, and is required to furnish team, wagon, harness, and furniture for his living rooms.

The poorhouse is an expensive luxury in Mower county. The average number of inmates for 1887 was one and a half; the net cost to the county after deducting sales of produce, etc., was \$771 making an actual cost of \$9.34 per week for each inmate.

For 1888 the showing will be somewhat better, but the expense will still amount to nearly \$5 a week for each pauper.

*Morrison county* poorhouse was opened in September, 1887. This poorhouse has not yet been visited and can not therefore be criticised.

*Murray county* has a poor farm, but no poorhouse. The farm was rented for \$80 in 1887.

*Nicollet county* poor house was found somewhat improved and was in satisfactory condition. The separate building erected for male inmates is without proper ventilation, and it is impossible to keep it in satisfactory condition.

*Olmsted county* poorhouse was found in good condition. The house was clean and the inmates apparently well cared for. The average number of paupers was 9.5 for 1887; average weekly cost per inmate, \$2.12.

*Otter Tail county* poorhouse is managed in a satisfactory manner in every respect. The bedrooms and beds were clean, kitchen and dining room very neat and clean. The county had built a stable and broken about 30 acres with the intention of going into stock farming. Average number of inmates for 1887, 16; average weekly cost per inmate \$2.86.

*Ramsey county* poorhouse has for a second time in the past six years lost its overseer by death. Mr. C. C. Mills was a very efficient and kind hearted superintendent and a faithful and reliable officer.

The poorhouse has a capacity of 120 inmates, but the average number during 1887 was only 39, the maximum being less than 60. The per capita expense is unavoidably larger than it would be if the poorhouse were nearer full, the cost for fuel, superintendence, etc, being about the same as if the poorhouse were full. The house is admirably well kept, the inmates always appear comfortable and very few complaints are heard. The supervision of the board of control is efficient and faithful; average weekly cost per capita for 1887 was \$4.29.

*Ramsey county* hospital. The city and county hospital has been greatly improved during the past two years.

A foundling's home has been built with a capacity of about 30. The building is heated by hot water. It contains well lighted rooms, every room having an open fireplace. There are



clothes chutes for soiled clothing. Each window has a transom 14x32 inches. The floors are of Georgia pine. The new administration building is nearing completion. It has a handsome front and is conveniently planned. The basement is used for domestic purposes. The first floor contains reception rooms and dining room. Second floor contains officers' residence and operating room. It is expected that the domestic department will be taken out of the basement and be transferred to the wings, which are yet to be erected. The hospital department is thoroughly satisfactory; cleanliness prevails in every department. There is a good corps of nurses and the domestic department is thoroughly administered. The whole institution reflects credit upon City Physician Ancker and the board of control. The location of the hospital is admirable, commanding an uninterrupted view of the Mississippi valley and securing every possible sanitary advantage, while at the same time the hospital is near enough to the centre of the city for convenient access.

*Redwood county* owns a poor farm with one hundred and sixty acres improved. The county has no need of a poorhouse.

*Rice county* poorhouse has again changed overseers. A large addition has been built to this poorhouse during the past two years and steam heat has been introduced. Like most additions to old wooden buildings the improvement of this poorhouse is unsatisfactory in several particulars. The provision for separating the sexes is inadequate. The building is exposed to danger from fire and is not so constructed as to minimize trouble from vermin. The house was moderately clean. The old dormitories above the kitchen, which have been criticised in previous reports, are still occupied and were not in good condition. This portion of the building should be entirely vacated, and indeed it ought to be torn down and removed.

The average number of inmates during 1887 was 15.8; the average weekly cost per capita, \$2.70.

*Rock county* poorhouse, when visited, had no inmates. The house was in bad repair and utterly unfit for the purpose. The rooms used for paupers are so arranged that those of one sex must go through the rooms of the other. The overseer was to receive \$2.50 per week for board and to pay \$150 yearly rent for the farm, but during 1887 and 1888 no paupers have been kept in this poorhouse, the overseer renting it as a private farm. This poorhouse is an illustration of the folly of establishing poorhouses in counties with small population.



*St. Louis county* poorhouse is well administered by Capt. Antoine Paul, who is also superintendent of the poor outside the poorhouse for St. Louis county. The internal condition of the house is much improved. An important addition to the poorhouse was made in 1888, the plans for which were not submitted to the board of corrections and charities.

The per capita cost appears large, but this is probably due to including of some permanent improvements in the current expense.

*Steele county* poorhouse has again changed overseers. Under Overseer Mears the administration had improved. Each bed had one sheet and one blanket which were clean. The bath room was not used except as a store room. The floors were not very clean. The bill of fare was reported satisfactory.

*Swift county* owns a poor farm of 120 acres, purchased in 1884 at a cost of \$720.

*Todd county* owns a farm in Burnhamville township valued at \$800.

*Wabasha county* poorhouse is still run on the contract system, the county paying two dollars per week for boarding paupers and furnishing fuel, bedding and light. The overseer has the use of the poor farm free. The house was not very clean; some bedbugs were found; cobwebs prevailed and the windows were dirty. The rooms were meagrely furnished. They should have small tables; there should be window screens. There was a bad smell in the laundry. The laundry should be removed from the basement. The hospital building is unfit for winter use and very cold. There was no rule as to bathing.

The secretary called on the chairman of the board of county commissioners, and called his attention to the condition of the laundry and the need of immediate repairs.

Average number of inmates in 1887, 22; average weekly cost per capita, \$219.

*Washington county* poorhouse is satisfactorily conducted. This poorhouse is notable for the very small number of female paupers, there having been one woman in 1887 and only two in 1888. Overseer Adam Amos has rendered long and faithful service.

Average number of paupers in 1887, 9.3; average weekly cost per inmate, \$2.70.

*Winona county* poorhouse was found in excellent condition. Each successive visit increases the conviction that the commissioners made a serious mistake in building an addition to the old poorhouse. It should have been replaced by an entirely new building. The present building is unsafe and is especially objectionable because of the lack of provision for separation of the sexes. The overseer employs no hired help outside the members of his family.

Average number of inmates in 1887, 21.1; average weekly cost per inmate, \$2.41.

#### REMARKS ON STATISTICS OF COUNTY POOR HOUSES.

Table "NN" exhibits the estimated value of county poor farms and property thereon Dec. 31, 1887, amounting to \$348,400. The valuation Dec. 31, 1886, was \$308,655; Dec. 31, 1885, \$302,472. The total capacity of the poorhouses is 710; so that the investment per bed is: For land and buildings, \$400; for other property, \$70; total investment per bed, \$470.

Tables "OO" and "PP" exhibit the current expenses of poorhouses for the years 1886 and 1887. The total net current expenses for 1887 were \$46,055; for 1886, \$47,840; for 1885, \$47,043, showing an actual decrease, notwithstanding the increase in the population of the state. The cost per inmate was \$155 in 1887, \$148 in 1886 and \$138 in 1885, showing an increase in the cost of maintenance. The average number of inmates was 341 in 1885, 323 in 1886, and 295 in 1887, showing a marked decrease. This is a most gratifying showing.

Tables "QQ" and "RR" show the movement of poorhouse population for 1886 and 1887. The total poorhouse population was 761 in 1885, 727 in 1886 and 669 in 1887, a notable decrease. The number on hand at the close of each year was as follows: 1887, 303; 1886, 344; 1885, 351.

Table "SS" shows the ages of inmates and the causes of pauperism. It will be observed that the pauperism in one half of the cases is due to old age and disease. Only 30 blind persons and no deaf and dumb are reported. There are probably 750 blind persons in the state, so that only 1 in 25 of them is in a poorhouse. The number of inmates between the ages of 5 and 16 years diminished from 50 in 1885 to 26 in 1887, in consequence of the opening of the state school at Owatonna.

Table "TT" exhibits the nationality of inmates. The data are not very satisfactory, but the general facts are probably nearly correct.

It appears from this table that, out of 1,395 inmates of poorhouses, 991, or 71 per cent, were foreign born. The total population of these counties in 1885 was 660,822, of which number 239,774, or 37 per cent, were foreign born. Of the whole population of Minnesota 38 per cent are foreign born.

By comparing table "TT" with tables "S" and "U" in this report, it will be seen that the foreign born population of this state, constituting 38.2 per cent of the entire population, furnish only 36.7 per cent of the state prison convicts, but at the same time they furnish 62.1 per cent of the inmates of the hospitals for insane and 71 per cent of the poorhouse population.

TABLE "NN."

SHOWING ESTIMATED VALUE OF COUNTY POOR FARMS AND PROPERTY THEREON IN MINNESOTA, DEC. 31, 1887, PER REPORTS OF OVERSEERS OF POORHOUSES AND COUNTY AUDITORS.

COUNTIES.	Capacity of Poorhouse without Overcrowd- ing.	No. of Acres of Land.	No. of Acres Im- proved.	Value of Land.	Value of Buildings.	Value of Furni- ture.	Value of Machin- ery.	Value of Live Stock.	Value of Other Property.	Total In- vestment Dec. 31, 1887.	Total In- vestment Dec. 31, 1886.
Becker.....	4	164	25	\$2,000	\$550	\$100				\$2,450	\$2,500
Blue Earth.....	24	160	80	4,000	6,100	450		\$350		11,050	11,085
Brown.....	120	120	40	1,000						1,000	
Chippewa.....	12	160		2,800	2,000				\$300	5,100	5,000
Cottonwood.....	e16			2,500	2,000					5,600	
Chicago.....	10	120	50	1,000	620					1,620	1,620
Crow Wing.....	e10	240		4,000	3,500	200			700	8,400	
Dakota.....	20	77	80	3,600	1,006	500			800	5,900	6,750
Dodge.....	20	200	90	3,500	3,550	200		1,150	50	10,300	10,185
Fillmore.....	12	395	300	8,000	4,630	600		1,000	1,100	16,330	16,080
Freeborn.....		320		6,000						6,000	5,000
Goodhue.....	45	200	61	5,000	5,000	605				10,605	10,605
Hennepin.....	100	40	40	10,000	33,250	2,270		1,357	2,360	53,300	43,150
Houston.....	16	150	50	1,500	1,000	200		20		2,750	2,970
Lac qui Parle.....	10	160	120	1,500						1,500	1,500
Le Sueur.....		160		2,500	1,500					4,000	4,000
Lyons.....		160		2,000						2,000	2,500
Marshall.....	137			2,000						2,000	2,000
Martin.....	10	160	100	3,800	1,500	100		460		4,760	4,760
Morrison.....	6	160		3,500	1,000	85		150		3,500	3,000
Mower.....		160		3,000	3,000					3,500	8,050
Murray.....	16	237	75	3,000	5,500	100		600		9,415	
Nicollet.....	25	160	100	4,000	3,500	200		610	1,500	11,000	11,000
Olmsted.....	25	240	40	3,240	2,000	3,000		1,500		6,350	5,810
Otter Tail.....	135	160		30,000	35,000			2,000		72,700	69,100
Ramsey.....		165		4,000						4,000	3,500
Redwood.....		160		7,000	5,000	300		1,000	400	14,100	14,000
Rice.....	50	160		2,400	400					2,800	2,800
Rock.....	2	160	101	16,000	3,500	190		885		20,730	20,600
St. Louis.....	25	160	10	3,000	2,000					5,000	5,000
Steele.....	12	120		1,200						1,200	
Swift.....		120		1,200						1,200	
Todd.....		160		1,800						1,800	800



TABLE "NN." — CONTINUED.

SHOWING ESTIMATED VALUE OF COUNTY POOR FARMS AND PROPERTY THEREON IN MINNESOTA, DEC. 31, 1887, PER REPORTS OF OVERSEERS OF POORHOUSES AND COUNTY AUDITORS.

COUNTIES.	Capacity of Poorhouse without Overcrowd- ing.	No. of Acres of Land.	No. of Acres Im- proved.	Value of Land.	Value of Buildings.	Value of Furni- ture.	Value of Machin- ery.	Value of Live Stock.	Value of Other Property.	Total In- vestment Dec. 31, 1887.	Total In- vestment Dec. 31, 1886.
Wabasha.....	40		40	\$1,600	\$9,000	\$500				\$11,100	\$11,100
Washington.....	25		247	6,000	4,000	800				14,050	13,500
Winona.....	40		200	1,500	7,000	100	60	\$2,000	\$50	8,960	8,960
Yellow Medicine.....			160	1,700	2,300					4,000	800
Totals.....	710			\$159,640	\$149,210	\$10,500	\$7,548	\$12,117	\$9,385	\$348,400	\$308,656

ø Estimated capacity.

TABLE "OO."

CURRENT EXPENSES OF COUNTY POORHOUSES IN MINNESOTA  
FOR THE YEAR ENDING DEC. 31, 1886, EXCLUDING MEDICAL  
EXPENSES AND PERMANENT IMPROVEMENTS.

1886.	Daily Average Number of Inmates.	Current Ex- penses.	Sales of Pro- duce.	Net Current Expenses.	Average An- nual Cost per Inmate.	Average Week- ly Cost per Inmate.
Anoka.....	a5.1	\$671.26	.....	\$671.26	.....	.....
Becker.....	1.2	639.71	.....	639.71	\$520	\$10.00
Blue Earth.....	11.	1,594.82	\$90.60	1,504.22	136	2.63
Chippewa.....	5.1	876.39	31.50	844.89	165	3.18
Chisago.....	3.6	488.33	.....	488.33	135	2.60
Dakota.....	12.5	1,731.46	.....	1,731.46	138	2.65
Dodge.....	10.6	1,293.44	490.23	803.21	76	1.45
Fillmore.....	8.4	2,916.75	1,071.14	1,845.61	219	4.21
Goodhue.....	17.5	3,492.84	.....	3,492.84	199	3.82
Hennepin.....	57.7	9,702.49	1,029.59	8,672.90	150	2.88
Houston.....	6.5	804.09	.....	804.09	123	2.40
Mower.....	2.6	1,341.43	660.92	680.51	261	4.93
Nicollet.....	15.	1,261.01	965.26	295.75	20	.38
Olmsted.....	a12.	1,622.35	315.78	1,306.57	.....	.....
Otter Tail.....	18.3	3,049.32	199.92	2,849.40	156	3.00
Ramsey.....	35.	7,168.00	216.25	6,951.75	198	3.97
Rice.....	23.2	2,056.85	.....	2,056.85	.....	.....
Polk.....	.9	273.94	.....	273.94	304	5.78
St. Louis.....	6.8	1,587.05	.....	1,587.05	253	4.47
Scott.....	a7.	871.41	.....	871.41	.....	.....
Steele.....	a6.	1,601.09	190.76	1,410.33	.....	.....
Todd.....	a1.	224.88	45.71	179.17	.....	.....
Wabasha.....	a22.	3,000.02	.....	3,000.02	.....	.....
Washington.....	10.5	2,011.90	.....	2,011.90	191	3.67
Winona.....	23.5	3,080.47	212.04	2,868.43	123	2.40
Totals.....	323.	\$53,361.30	\$5,519.70	\$47,841.60	\$148	\$2.84

a Estimated. No report received.

TABLE "PP."

CURRENT EXPENSES OF COUNTY POORHOUSES IN MINNESOTA  
FOR THE YEAR ENDING DEC. 31, 1887, EXCLUDING MEDICAL  
EXPENSES AND PERMANENT IMPROVEMENTS.

COUNTIES.	Daily Average Number of Inmates.	Current Expenses for the Year.	Sales of Produce.	Net Current Expenses for the Year.	Average Annual Cost per Inmate.	Average Weekly Cost per Inmate.
Anoka, <i>a</i> .....	5.3	\$685.48		\$685.48		
Becker.....	1.	355.44		355.44		
Blue Earth.....	9.7	1,931.10	\$460.57	1,470.53	\$355	\$6.70
Chippewa, <i>a</i> .....	5.	840.21		840.21	151	2.89
Chisago.....	2.9	446.31		446.31		
Cottonwood.....		620.38	50.00	570.38	153	3.02
Dakota.....	12.3	1,425.29		1,425.29		
Dodge.....	6.2	1,211.39	536.02	675.37	115	2.22
Faribault <i>a</i> .....	3.	409.05		409.05	109	2.09
Fillmore.....	6.1	1,637.88		1,637.88		
Goodhue.....	18.	2,204.60	1,137.64	500.24	82	1.56
Hennepin.....	55.	9,496.88		2,204.60	122	2.35
Houston.....	6.1	821.12	1,559.63	7,937.25	144	2.77
Morrison <i>b</i> .....	1.1	1,017.59		821.12	134	2.58
Mower.....	1.6	1,287.39		1,017.59		
Nicollet.....	14.	1,183.12	516.13	771.26	482	9.34
Olmsted.....	9.4	1,282.54	609.34	573.78	41	.80
Otter Tail.....	16.	2,566.37	245.13	1,037.41	110	2.12
Ramsey.....	38.8	9,284.34	234.65	2,331.72	145	2.86
Rice.....	15.8	2,231.90	691.16	8,593.18		4.29
Rock.....		128.01		2,231.90	141	2.70
St. Louis.....	6.4	1,112.76		128.01		
Scott <i>a</i> .....	3.3	322.93	236.34	2,876.42	449	8.66
Steele <i>a</i> .....	6.	1,171.13		322.93		
Wabasha.....	22.	3,342.79	645.32	525.81		
Washington.....	9.3	1,578.44	273.63	3,342.79	152	2.91
Winona.....	21.1	2,736.17	80.00	1,304.81	140	2.70
				2,656.17	126	2.41
Totals.....	295.4	\$53,330.61	\$7,275.56	\$46,055.05	\$155	\$2.97

*a* Population estimated. No report received.

*b* Opened September, 1887.

*c* Includes some permanent improvements.

TABLE "QQ."  
SHOWING MOVEMENT OF POPULATION IN COUNTY POORHOUSES IN MINNESOTA FOR THE YEAR ENDING  
DEC. 31, 1886.

COUNTIES.	Number in the Poorhouse Jan. 1, 1886.			Number Received During the Year.			Number Born in Poorhouse During Year.			Total Population During the Year.			Number Discharged During the Year.			Number Bound Out or Adopted During the Year.			Number Ran Away During the Year.			Number Died During the Year.			Total Loss of Population During the Year.			Number in Poorhouse Dec. 31, 1886.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.			
Anoka a.	3	1	4	6	2	8	9	9	12	3	9	12	5	1	6	1	1	2	5	1	6	1	4	2	6	4	2	6		
Becker.....	2	5	7	7	10	17	27	4	38	11	27	38	16	7	23	1	1	2	8	19	27	8	1	9	18	4	8	12		
Blue Earth.....	3	2	5	1	1	2	4	1	6	4	4	5	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	4		
Chippewa.....	3	2	5	8	2	10	21	3	24	14	21	35	12	3	15	3	3	6	1	1	2	1	1	2	1	1	2	4		
Chisago.....	13	1	14	9	10	19	14	14	28	19	19	38	8	9	17	1	1	2	1	1	2	1	1	2	1	1	2	4		
Dakota.....	5	4	9	9	5	14	26	7	33	10	26	36	3	6	9	1	1	2	1	1	2	1	1	2	1	1	2	4		
Dodge.....	6	4	10	3	9	12	128	25	153	25	128	153	59	19	78	4	4	8	1	1	2	1	1	2	1	1	2	4		
Fillmore.....	17	3	20	74	14	88	9	5	14	2	11	15	2	1	3	1	1	2	1	1	2	1	1	2	1	1	2	4		
Goodhue.....	54	11	65	6	4	10	5	5	10	7	12	19	2	1	3	1	1	2	1	1	2	1	1	2	1	1	2	4		
Hennepin.....	5	1	6	3	2	5	12	7	19	13	20	30	1	4	5	1	1	2	1	1	2	1	1	2	1	1	2	4		
Houston.....	3	3	6	3	2	5	9	9	16	7	16	23	2	1	3	1	1	2	1	1	2	1	1	2	1	1	2	4		
Mower.....	8	7	15	1	1	2	12	7	19	13	20	30	1	4	5	1	1	2	1	1	2	1	1	2	1	1	2	4		
Nicollet.....	6	4	10	6	3	9	12	7	19	13	20	30	1	4	5	1	1	2	1	1	2	1	1	2	1	1	2	4		
Omsted a.	16	8	24	11	5	16	88	14	102	15	88	102	42	5	47	1	1	2	1	1	2	1	1	2	1	1	2	4		
Outer Tail.....	30	5	35	22	11	33	3	3	6	3	3	6	2	1	3	1	1	2	1	1	2	1	1	2	1	1	2	4		
Ramsey.....	46	6	52	2	2	4	19	4	23	4	19	23	17	1	18	1	1	2	1	1	2	1	1	2	1	1	2	4		
Rice.....	1	1	2	1	15	16	13	4	17	4	13	17	7	1	8	1	1	2	1	1	2	1	1	2	1	1	2	4		
Rock.....	1	1	2	1	3	4	19	4	23	4	19	23	17	1	18	1	1	2	1	1	2	1	1	2	1	1	2	4		
St. Louis.....	1	4	5	2	8	10	13	4	17	4	13	17	7	1	8	1	1	2	1	1	2	1	1	2	1	1	2	4		
Scott a.	5	5	10	6	5	11	20	12	32	13	20	32	11	3	14	1	1	2	1	1	2	1	1	2	1	1	2	4		
Steele a.	15	5	20	12	8	20	17	5	22	15	17	22	9	5	14	1	1	2	1	1	2	1	1	2	1	1	2	4		
Wabasha a.	12	1	13	13	5	18	33	15	48	15	33	48	13	7	20	1	1	2	1	1	2	1	1	2	1	1	2	4		
Washington.....	19	11	30	14	4	18	180	180	727	180	180	727	256	88	344	1	1	2	6	1	7	289	94	383	258	86	344	258		
Winona.....	254	81	335	291	97	388	547	2	549	180	547	727	256	88	344	1	1	2	6	1	7	289	94	383	258	86	344	258		
Totals.....	254	81	335	291	97	388	547	2	549	180	547	727	256	88	344	1	1	2	6	1	7	289	94	383	258	86	344	258		

a Estimated. No report received.



TABLE "R.R."

TABLE SHOWING MOVEMENT OF POPULATION IN COUNTY POORHOUSES IN MINNESOTA FOR THE YEAR  
ENDING DEC. 31, 1887.

COUNTIES.	Number in the Poorhouse Jan. 1, 1887.			Number Received During the Year.			Number Born in Poorhouse During Year.			Total Population During Year.			Number Discharged During Year.			Number Bound Out or Adopted During Year.			Number Ran Away During Year.			Number Died During the Year.			Total Loss of Population During Year.			Number in Poorhouse Dec. 31, 1887.			
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.				
Anoka <i>a</i> .....	4	2	6	6	2	8	10	4	14	24	6	2	8	1	1	2	1	1	2	1	1	2	1	1	2	6	2	8	4	2	6
Becker.....	1	1	2	6	1	7	7	7	14	21	3	3	6	1	1	2	1	1	2	1	1	2	1	1	2	4	3	7	4	2	6
Blue Earth.....	8	4	12	9	7	16	17	12	29	41	5	4	9	1	1	2	1	1	2	1	1	2	1	1	2	15	5	20	2	2	4
Chippewa.....	4	2	6	6	1	7	5	3	8	13	3	4	7	1	1	2	1	1	2	1	1	2	1	1	2	5	3	8	2	2	4
Chicago.....	1	4	5	2	3	5	25	3	28	33	3	2	5	1	1	2	1	1	2	1	1	2	1	1	2	10	3	13	2	2	4
Dakota.....	10	10	20	15	3	18	25	3	28	33	3	2	5	1	1	2	1	1	2	1	1	2	1	1	2	10	3	13	2	2	4
Dodge.....	6	4	10	2	2	4	7	6	13	20	4	3	7	1	1	2	1	1	2	1	1	2	1	1	2	4	3	7	4	2	6
Fillmore.....	5	3	8	2	2	4	7	3	10	17	2	1	3	1	1	2	1	1	2	1	1	2	1	1	2	4	3	7	4	2	6
Goodhue.....	15	4	19	7	5	12	22	3	31	39	5	6	11	1	1	2	1	1	2	1	1	2	1	1	2	8	6	14	4	2	6
Hennepin.....	61	6	67	86	9	95	147	15	162	212	84	9	93	1	1	2	1	1	2	1	1	2	1	1	2	91	9	100	56	6	62
Houston.....	4	2	6	3	4	7	9	6	15	24	3	5	8	1	1	2	1	1	2	1	1	2	1	1	2	6	1	7	7	2	9
Morrison <i>b</i> .....	2	1	3	3	1	4	8	1	9	13	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	4	3	7	4	2	6
Mower.....	2	2	4	3	1	4	6	1	7	13	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	4	3	7	4	2	6
Nicollet.....	8	7	15	1	1	2	9	7	16	25	4	4	8	1	1	2	1	1	2	1	1	2	1	1	2	5	5	10	6	1	7
Olmsted.....	5	3	8	7	3	10	12	3	15	23	4	4	8	1	1	2	1	1	2	1	1	2	1	1	2	5	5	10	6	1	7
Other Tail.....	13	6	19	9	3	12	22	3	31	39	6	2	8	1	1	2	1	1	2	1	1	2	1	1	2	9	3	12	13	6	19
Ramsey.....	42	9	51	40	6	46	22	15	37	52	35	7	42	2	2	4	1	1	2	1	1	2	1	1	2	18	6	24	18	3	21
Rice.....	13	8	21	6	1	7	19	9	28	37	8	7	15	8	2	10	4	4	8	2	2	4	2	2	4	43	9	52	39	6	45
Rock <i>a</i> .....	1	1	2	1	1	2	2	2	4	6	2	2	4	1	1	2	1	1	2	1	1	2	1	1	2	4	3	7	4	2	6
St. Louis.....	2	2	4	34	1	35	2	36	40	42	2	2	4	1	1	2	1	1	2	1	1	2	1	1	2	24	2	26	12	5	17
Steele <i>a</i> .....	5	1	6	5	1	6	10	2	12	18	5	1	6	1	1	2	1	1	2	1	1	2	1	1	2	5	5	10	6	1	7
Wabasha.....	16	10	26	7	6	13	12	16	39	55	12	5	17	2	2	4	1	1	2	1	1	2	1	1	2	14	5	19	9	11	20
Washington.....	7	7	14	5	1	6	23	13	36	49	3	1	4	1	1	2	1	1	2	1	1	2	1	1	2	3	3	6	6	12	19
Winona.....	19	7	26	7	4	11	26	11	37	54	9	5	14	3	1	4	1	1	2	1	1	2	1	1	2	12	6	18	14	5	19
Totals.....	252	82	334	273	58	331	528	141	669	1069	245	63	308	7	1	8	32	8	40	40	288	78	366	240	63	303	303	303	303	303	303

*a* No report, estimated. *b* Opened Sept. 12, 1887.

*a* No report, estimated. *b* Opened Sept. 12, 1887.

TABLE "SS."

SHOWING THE AGES OF INMATES OF THE COUNTY POORHOUSES  
OF MINNESOTA, ALSO THE CAUSES OR SUPPOSED CAUSES OF  
PAUPERISM.

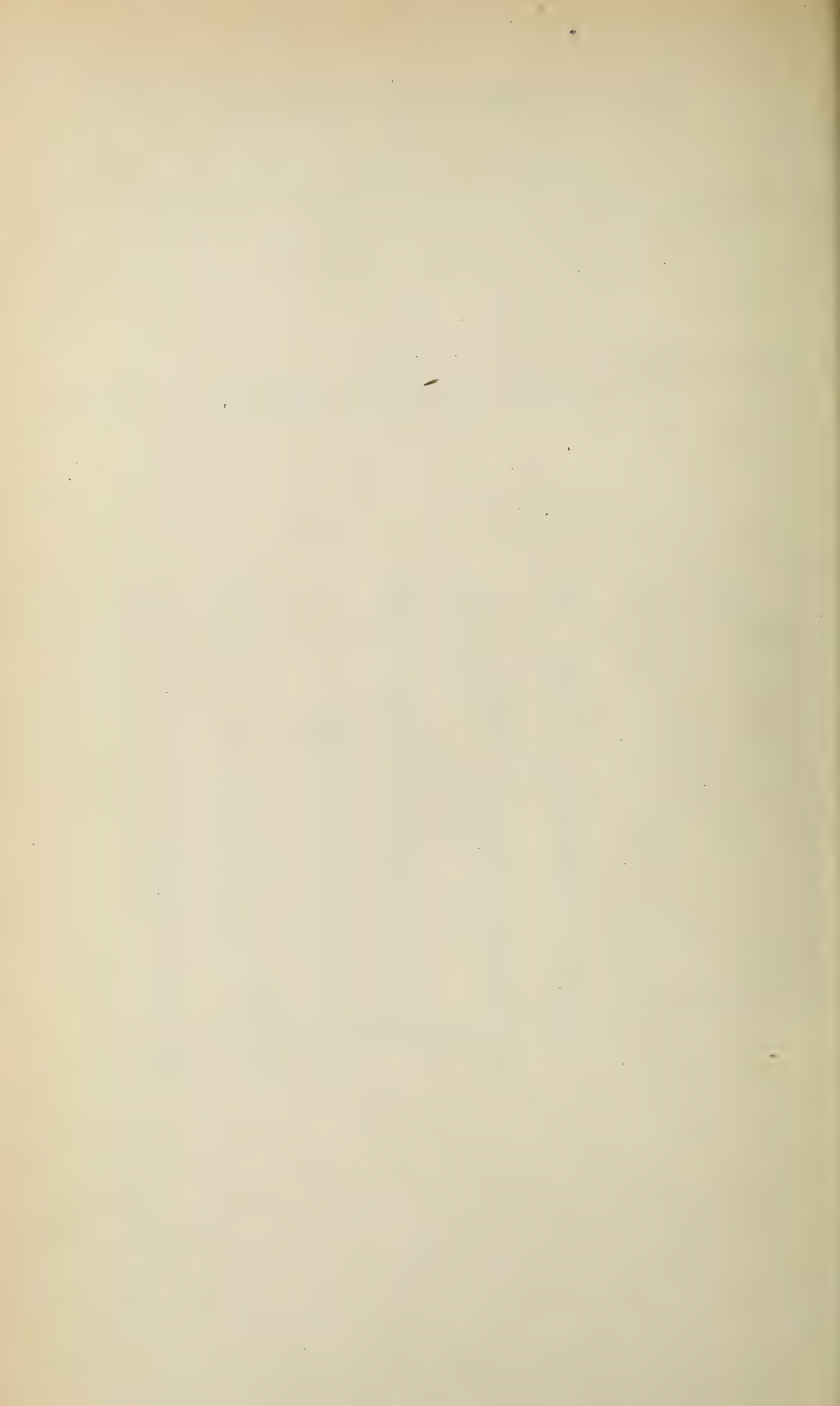
AGES.	Year 1886.	Year 1887.	Total for two years.
Number of inmates under five years.....	27	32	59
Number of inmates from five to sixteen.....	35	26	61
Number of inmates from sixteen to sixty.....	445	408	853
Number of inmates over sixty.....	220	203	423
Totals.....	727	669	1,396
CAUSES OF PAUPERISM.			
Insanity.....	8	11	19
Idiocy.....	11	17	28
Old age.....	189	138	327
Disease.....	184	205	389
Loss of limbs.....	15	20	35
Deformity.....	40	15	55
Blindness.....	14	16	30
Lying-in cases.....	12	9	21
Not disabled physically.....	254	238	492
Totals.....	727	669	1,396

Out of 669 inmates during the year 1887, 171 persons were native born and 498 foreign born.

TABLE "TT."

SHOWING WHETHER INMATES OF COUNTY POORHOUSES ARE  
NATIVE OR FOREIGN BORN—BY COUNTIES.

	1886.		1887.		TOTAL.	
	Native.	Foreign.	Native.	Foreign.	Native.	Foreign.
Anoka.....	4	8	7	7	11	15
Becker.....	5	4	2	6	7	10
Blue Earth.....	24	14	17	12	41	26
Chippewa.....	3	3	4	4	7	7
Chisago.....	2	3	2	5	4	8
Dakota.....	7	17	3	25	10	42
Dodge.....	18	10	10	5	28	15
Fillmore.....	1	18	2	8	3	26
Goodhue.....	5	28	10	21	15	49
Hennepin.....	18	135	24	138	42	273
Houston.....	5	6	.....	15	5	21
Morrison.....	.....	.....	3	6	3	6
Mower.....	2	3	1	6	3	9
Nicollet.....	3	13	2	14	5	27
Olmsted.....	12	7	10	5	22	12
Otter Tail.....	20	20	18	13	38	33
Ramsey.....	35	67	9	88	44	155
Rice.....	21	21	14	14	35	35
Rock.....	2	1	1	1	3	2
St. Louis.....	5	18	5	31	10	49
Scott.....	5	12	.....	.....	5	12
Steele.....	6	6	6	6	12	12
Wabasha.....	15	25	11	28	26	53
Washington.....	6	16	4	9	10	25
Winona.....	9	39	6	31	15	70
Totals.....	233	494	171	498	404	992





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SECRETARY'S REPORT.

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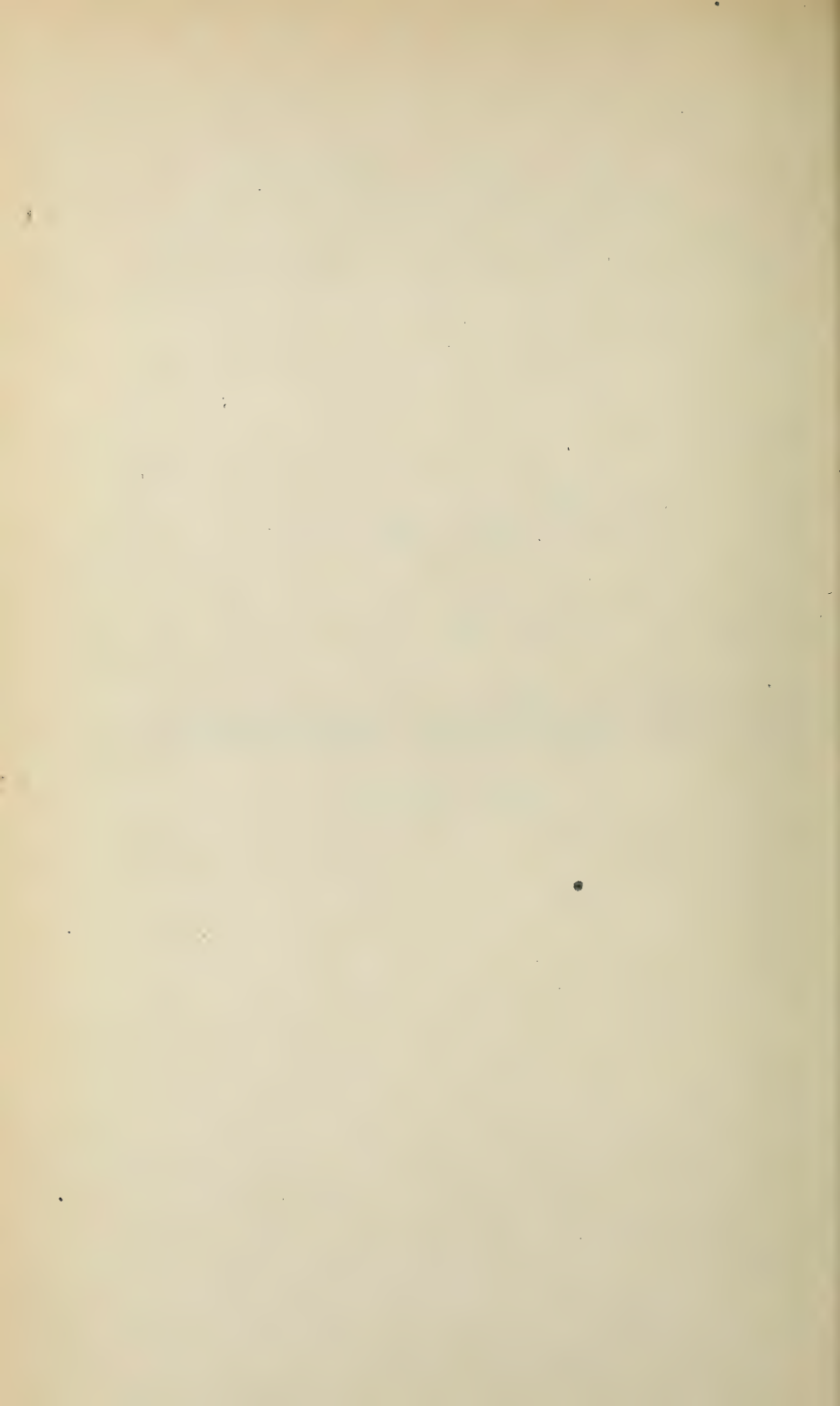
PART IV.

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PRIVATE CHARITABLE INSTITUTIONS  
IN MINNESOTA.

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# PRIVATE CHARITABLE INSTITUTIONS.

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## HOSPITALS FOR THE SICK.

### AITKIN.

*St. Anthony Hospital*, of Minneapolis maintains a branch at Aitkin for the benefit of lumbermen who hold its tickets.

### BRAINERD.

*The Northern Pacific Sanitarium* is maintained by the Northern Pacific Company for sick and injured employes. The building is of wood, well lighted, heated, and ventilated, situated on the west bank of the Mississippi. The hospital is well appointed, conveniently arranged, and thoroughly administered. Expenses are met by a small monthly deduction from the wages of employes. Medical attendance is furnished at their homes for employes who have families, or can not be treated at the sanitarium.

The sanitarium has been placed lately in the hands of a new management and is now thoroughly prepared to do antiseptic surgery, and much attention has been given to the details of hygiene.

During the year ending June 30, 1888, there were 1,019 persons treated, distributed as follows: Indoor patients, 290; outdoor patients, 124; office patients, 605. There were 43 patients on hand Nov. 30, 1880. The current expense for the year was \$19,447. Estimated value of buildings, \$30,000. Furniture and fixtures, \$2,500. The institution is built on grounds belonging to the railroad company.

### DULUTH.

*St. Lukes Hospital*—*Matron*—Miss Mary E. Scott.

The hospital was organized in 1881, and occupied a rented building until the spring of 1883, when the present building was occupied. The building is a two story frame; capacity, 40.

During the past year a stone foundation has been built, cement floor and sewerage put in. It contains kitchen, 14x22; dining room, 10x16; day room, 18x24; sick wards, 20x42, 20x36, and 18x30. The building is ventilated by fireplaces and ventilators in the ceiling; heated by furnaces. The grounds are 100x140.

The institution "aims to nurse and care for the sick better and cheaper than they can do for themselves."

Estimated value of real and personal property, \$12,000; estimated current expenses for the year ending Dec. 31, 1888, \$6,500; number cared for during the year, 359; daily average number, 30; number of inmates on Nov. 30, 1888, 28.

*St. Marys Hospital*, organized 1888, receives poor people, is under the supervision of the Benedictine Sisters, and has been in operation nine months. During this time 427 patients have been cared for; 348 males, 79 females. The hospital is supported by private contributions and fees from those able to pay.

*St. Anthony Hospital* of Minneapolis has a branch in Duluth.

#### MINNEAPOLIS.

*Maternity Hospital*, Twenty-sixth street and Fourth avenue South.

*President*—Mrs. W. M. Lawrence.

*Secretary*—Mrs. J. F. Jordan.

Organized 1886.

The institution receives poor married women, deserted wives and unfortunate girls. Pains are taken to provide places for the girls in respectable families or in the country where they can gain an honest living.

During the first year and a half seventy-five patients were provided for during confinement, and homes found for many after their recovery.

*Northwestern Hospital for Women and Children*, 2527 Clinton avenue.

*President*—Mrs. H. G. Walker.

*Superintendent*—Miss Throckmorton.

Organized 1882.

The hospital occupied a rented house for one year, and then purchased the present property. The new building is one of three buildings connected by corridors, and which will comprehend the complete plan. This building constitutes the west



wing. It is 50x100 feet, with a high basement, two stories and a French roof. It is built of red brick, with terra cotta trimmings. The basement contains kitchen, pantry, laundry, dining room, janitor's room, fuel cellar and servants' rooms. The first floor contains reception room, superintendent's room, patients', dining and nurses' rooms, drug closet lavatory, long ward and private patients' wards. Second and third floors contain children's wards and wards of various sizes, with same arrangements of lavatories, drug and linen closets, and with tea kitchen for night use. The building is provided with labor saving devices, dumb waiters, clothes chutes, storage closets, etc., and is heated by steam.

The classes cared for are "worthy women and children of the Northwest, extending the full benefits of the institution to those unable to pay, and charging the others according to their means."

The work is intended to be charitable, admission of patients being in the following order: First, charity patients; second, city patients or part pay patients, and lastly, pay patients.

A leading feature of the hospital is a nurses' training school, furnishing an eighteen months' course of practical instruction, with lectures, text books and examinations. The nurses are allowed \$1 per week for the first six months, \$2 for the second, and \$3 for the third. "Nurses from this school are eagerly sought, and given constant employment." The training school at present contains fifteen pupils.

Estimated value of property, \$65,000.

Running expenses year ending Nov. 1, 1888, \$7,436.70.

Patients during the year (women and children), 201; remaining at end of year, 31. The average number cared for each month, 30.

*St. Barnabas Hospital*, 901 Sixth street South.

*President*—Hon. Isaac Atwater.

*Superintendent*—Mrs. Alice Pew.

The hospital has four buildings. A brick building two and a half stories, 80x26, containing wards and private rooms. A two-story brick building, 81x33, containing private rooms. Two wooden buildings, 24x40 and 24x24. The grounds are 200x150 feet. Since last report a two-story building containing sixteen rooms has been added, costing \$7,000.

The hospital aims "to give the patients the best of care at lowest possible cost, cure them of their bodily ailments and assist them spiritually."

"There has been a decided increase of interest in the hospital the past year by the churches."

Estimated value of property, \$30,000.

Patients during the year: Males, 495; females, 52; total, 547; average during year, 27.

Number of inmates Dec. 31, 1888, was 31.

Estimated current expenses for year ending Dec. 31, 1888, \$11,000.

*St. Anthony Hospital* is a private institution with branches at Duluth and Aitkin. Certificates are sold at ten dollars per year entitling the holder to medical and surgical treatment, medicines and hospital care, in case of sickness or injury. The branches are largely patronized by lumbermen.

*St. Marys, or "The Sisters" Hospital*, 2616 Sixth street South, is under the auspices of the Roman Catholic church.

*Superintendent* — Superioress Ignatius.

The hospital receives all classes of patients. It is supported by receipts from private patients, fees from membership tickets and donations.

Estimated value of real and personal property, \$80,000. Estimated current expenses for the year, \$4,000.

Total number of patients cared for during the year, 140; males, 78; females, 62. Number on hand Nov. 30, 1888, 12.

*Minnesota Hospital College Dispensary.* No report received.

#### MOORHEAD.

*General Hospital.* This institution is not at present in operation.

#### NEW ULM.

*St. Alexanders Hospital.* Organized 1883.

*Superintendent* — Rev. Alexander Berghold.

*Matron* — Rev. Mother Anna Margaretha Michel.

The hospital is composed of two brick buildings and two frame buildings adjoining each other, one building having three stories, and three buildings having two stories each. Capacity, without overcrowding, forty. Kitchen, 18x26; laundry, 18x18; dining room, 14x19; sitting room, 14x19. Sick wards of various sizes, heated by furnaces and stoves. Ventilation "after the latest improvements." Water supply by gravitation from a running spring.

The hospital owns forty acres of land, and is finely situated, overlooking the valley of the Minnesota. The hospital receives all classes, but particularly such as have limited means, the charges being very low. Small pox and diphtheria patients are not received. The hospital is sustained by private contributions and fees. County patients are received from adjacent counties.

Estimated value of property, \$20,000. Expenses for the year ending Nov. 30, 1888, \$6,746.40. Patients during the year: Males, 149; females, 50; total 199. Number present Nov. 30, 1888, 14.

#### RED WING.

*Goodhue County Hospital* was opened in 1884. The hospital is maintained by Goodhue county.

*Chairman of County Board*—F. Seebach.

*Matron*—Mrs. W. E. Bell.

The hospital occupies a dwelling house rented for the purpose. The house is not specially adapted to this use. It is plainly but substantially furnished. Capacity, twelve.

Private patients are received at one dollar per day. This hospital is a new enterprise, and has had comparatively a small number of patients thus far.

Current expenses for 1888, \$1,481.

Number cared for during year: Males, 22; females, 20; total, 42.

Number present at close of year, 5.

#### ST. CLOUD.

*St. Benedicts Hospital* is conducted by the Benedictine Sisters.

This benevolent institution was organized in 1885 and opened for the reception of patients February, 1886. It is situated in a healthy and pleasant locality a short distance from the Manitoba depot.

The building is three stories high, with balcony in front. There are two dormitories, two dining rooms, a sitting room and two wards for the sick. Besides the wards, patients can be accommodated with private rooms. All the apartments are heated by furnace. Water from city.

This hospital admits all classes without reference to creed or nationality, and is supported by the fees exacted for medical assistance and services.



The estimated value of real and personal property is \$8,000.

The total number cared for since the cyclone which occurred two years ago and up to Nov. 30, 1888, has been 532—380 males, 152 females.

#### ST. PAUL.

*City and County Hospital*, Richmond street.

*Board of Control*—I. P. Wright, Henry Hechtman and M. R. Prendergast.

*City and County Physician*—A. B. Ancker, M.D.

The hospital was established about 1871, and is supported jointly by the city of St. Paul and county of Ramsey.

The legislature of 1886-7, by enactment granted the city permission to issue bonds to the amount of \$50,000, and created a special commission to build a new hospital, and last spring work was commenced upon it. The site is midway between the Mississippi's level and that of the bluffs, on a plateau of a mile wide.

The river is only a quarter of a mile from the hospital, and the never resting fresh stream from the far Northwest effectively purifies the air, which in summer blows from the south across the Mississippi. Especial attention was paid in the location and plan of construction to light and air, and they have been secured in perfection. The "Pavilion" system was adopted for this purpose, which also possesses the additional advantage of isolation. The plan is the erection of an administration building, flanked on either side by pavilions, two on the easterly and two on the westerly flanks; kitchen, laundry and boiler house to the rear of administration building, with maternity and isolation pavilions. The entire group is connected by corridors, which are open colonnades in summer and glazed and inclosed in winter. The pavilions are 52 feet apart, the east and west pavilions having each a wide street skirting them, and a 23 foot space between them and the outer boundary of the lot. The distance between the pavilions and the centre or axis building is 162 feet, and the frontage of the entire group is 437 feet. The kitchen is 75 feet from the administration building. The kitchen is a one story structure.

The four pavilions will accommodate 152 beds, and in the administration building the upper story will be temporarily used for convalescents; there are 28 beds more, and provision is made for 6 beds more for accidents, etc., making a total of 186 beds. The administration building consists of three stories



and basement, the basement being 10 feet high, and the ceilings on each of the other three floors being 14 feet high. On the first floor are the offices, trustees', reception, resident physician's, matron's, library, apothecary's and bath rooms, besides the museum, the dining, sitting and bed rooms, besides the superintendent's rooms, also the etherizing, operating and consultation rooms. A fine amphitheatre can be arranged from the operating room, with a seating capacity of 150. The building will cost about \$250,000 when completed, and the style of the building is described by Dr. Ancker as follows:

"In a purely architectural view, it has been considered that that style or design which best serves the purpose for which the building is planned will ever prove the most satisfactory. Hence symmetrical simplicity, harmonious proportion and cheerful combinations of parts, and color of material has been kept constantly in view. Architectural detail has been subordinated to surface and underground drainage, sunlight and heat, aeration, ventilation, economy of service and safe and stable construction."

The hospital receives the sick and injured who are a public charge in Ramsey county, and a few private patients.

Since the last report the new administration building has been built, and an admirable pavilion for a foundling's home.

The weekly cost per patient in 1888 was \$4.62.

*St. Josephs Hospital*, Ninth and Exchange streets.

Organized 1854.

*President*—Right Rev. John Ireland.

*Superioress*—Mother Bernardine.

The present building was erected in 1878. It is a three-story stone building with two wings; capacity, 150. Kitchen, 15x20; laundry, 15x30; dining room, 15x20; six wards, each 15x20; one ward 40x90, and fifteen private rooms. Heated by furnaces. Ventilation by fireplaces and air shafts to separate rooms. City water. Grounds a triangle, with 230 feet frontage.

The hospital receives all classes, and is supported by the fees of patients. A new wing, 40x90, has been recently completed. All the buildings are heated by steam. Within the last year a steam laundry has been added.

The institution aims not only to "re-establish the health" of the patient, but also to reclaim such as have not led good lives. "When Catholics, to have them attend to their religious duties; when belonging to other churches, their ministers are sent for to attend them."

Thirty poor patients have been received, attended free, and clothing has also been provided.

Number of patients during the year ending Nov. 30, 1888: Males, 634; females, 176; total, 810. Average number during the year, 68. Remaining at the end of the year, 80.

Estimated current expenses for the year \$15,000.

*St. Lukes Hospital.* Organized 1873.

*President* — Mrs. Oliver Dalrymple.

*Matron* — Mrs. M. A. Bradbury.

Estimated value of property up to date, \$55,000. Estimated current expense for past year \$6,500. Number of patients during year: Males, 126; females, 182; total, 308.

The old hospital was described in the last biennial report of the board. Foundations for the new building are in and work on the superstructure will be commenced in the spring. The following is a description of the new hospital as planned:

It will be a plain but substantial building of brick, with stone trimmings. There will be little attempt at ornamentation, but due regard will be paid to proportions, and the structure will present quite an imposing appearance. It is to be three stories high, with a basement and high roofs, entirely fire proof throughout. In the basement provision is made for servants' quarters, steward's department, janitor's room, two accident rooms, linen and clothes rooms, kitchen, laundry, mattress and disinfecting room, boilers, etc. The floor will be of concrete surfaced with asphalt, with portions paved with slate slabs. The first floor will contain the offices, rooms for matron and resident physicians, trustees' room, dining room, tea room, nurses' rooms and eleven private rooms. In the three floors above will be the hospital wards. Each floor will be furnished also with nurses' rooms and with its own dining room, tea room, linen and clothes rooms, closets, etc. The operating, etherizing and recovery rooms are above the third story and the operating room will be lighted by a sky light.

The whole number of beds in the various wards (male, female, children's, maternity and private) is seventy-two. The corridors extending through the different floors are unobstructed, without recesses or turns, and receive light and air at each end and at the centre. All the clothes lifts and dust shafts are outside the building. The wards are isolated as much as possible so as to obtain aeration on at least three sides, and large sun bays are provided, in which, at the floor level, are laid heating pipes for

foot warming in cold weather. Fireplaces are provided for nearly all the wards, contributing to cheerfulness and as auxiliaries to ventilation.

The sanitary arrangements are very complete. The heating is to be by the hot water system, the heat from which, it is claimed, is more salutary and agreeable for sick persons than that which is radiated from steam pipes. Scrupulous attention has been paid to the matter of ventilation, in the arrangement of corridors, windows, doors, staircases, fireplaces and other appurtenances. Even the gas lights will contribute to the ventilation. The removal of foul air is to be effected by an aspirating shaft extending upward through the building. Into this shaft all main ducts running above the corridor ceilings will discharge their contents. Under the centre of each bed branch ducts connect with the mains. In the centre of the ceiling of each ward also are openings connecting with the ducts for summer use. A fan in the basement operated by steam will introduce the fresh air.

The interior of the building is to be of the simplest form and character, and no more wood work will be put in than is absolutely required. All angles will be rounded, and mouldings will be used only where disease germs can not get. The floors are to be of birch, except where tiling is used, and they are to be put together with white lead and resin, with no varnish finish. All the wood work will be of oak. The roofs, all window seats and staircases will be of slate, and all construction that might afford harbor for vermin or germs is to be avoided.

Provision is made for fire appliances within the building and fire escapes without; for electrical apparatus and all such modern improvements.

*The Homeopathic Hospital*, Granite street.

*President*—Hon. Wm. R. Marshall.

The hospital receives all classes of patients and is supported by voluntary contributions and board fees from those able to pay. The institution is well administered. There is in connection a training school for misses.

Estimated value of property, \$9,000.

Patients during the year: Males, 47; females, 45; total, 92.  
Number present Nov. 30, 1888, 10.

*Swedish Hospital*. No report received.

## STILLWATER.

*City Hospital.* Organized 1879.

*President Board of Directors*—Mrs. F. Pennington.

*Matron*—Mrs. E. A. Brown.

The hospital building is owned by the city of Stillwater, and rented to the Hospital Association. Since the last report a new building, separate from the main building, has been erected by funds received from various sources, containing two wards to accommodate four patients each. Capacity, 27 patients. It is a two-story frame dwelling house. It contains five wards, dining room, kitchen, etc. Water from a cistern; heat by stoves; ventilation good. The hospital is pleasantly and conveniently situated. It receives private, charity, and county patients. Expenses are met by donations, occasional entertainments, pay patients and county patients.

Estimated value of property, \$6,000. Running expenses year ending Nov. 1, 1888, \$3,941.11. Number of patients during year: Males, 111; females, 17; total, 128. Number at the close of the year, 16.

## WINONA.

*St. Johns Hospital.* The new hospital of St. Johns is in charge of the Sisters of St. Joseph. It was erected in 1885 as a private school by the Sisters of St. Francis. The building was purchased by Archbishop Ireland in 1888 for \$30,000, for a hospital, and was found well adapted for the purpose. The building is 227x35 feet, and four stories high, and contains sixty rooms. It is situated on high ground, where good drainage and ventilation are readily secured.

There has been a lack of hospital accommodations in southeastern Minnesota, and this hospital will fill an important place. The establishment of a hospital at Winona was urged in the first biennial report of this board, page 175.



## INSTITUTIONS FOR DEPENDENT CHILDREN.

## IONA, MURRAY COUNTY.

*Home of the Sacred Heart for Boys.* Organized in 1881.

*Manager*—Rev. M. McDonnell.

There are two buildings, 34x34 and 28x44, each two and a half stories high. Capacity, twenty-five children. Kitchen, 16x18; laundry, 10x18; dining room, 18x20; day room, 16x18; dormitories, 18x44 and 18x26 feet. Heated by stoves; water from the well.

The institution owns 1,990 acres of land, of which 1,000 is fenced in as pasture, and 170 acres are under cultivation.

The institution receives homeless and destitute orphans, and undertakes to give them a home until they arrive at majority, train them to industry, particularly farming, and to give them a useful, practical education.

The home is supported "by the products of the farm and donations from friends of the institution."

Estimated value of the property, \$31,850. Current expenses for the year 1888, \$4,200. Inmates: Males, 22; females, 2; total, 24.

## MINNEAPOLIS.

*The Catholic Orphan Asylum for Boys* receives orphans and destitute children. It "also cares for foundlings by placing them with nurses or finding homes for them." "The inmates are given an education in the common school branches and then are sent to learn trades."

Current expenses for 1888, \$5,000.

Total number cared for during the year, 85. Average for the year, 75.

*Church Home for Babies*, Fifth avenue, South.

Conducted by Sister Annette.

Organized in May, 1885.

No report received.

*Sheltering Arms*, Twelfth street and Twenty-seventh avenue.

*President*—Mrs. S. S. Breed.

Organized in 1883, under the auspices of the Protestant Episcopal Church.

The building is a two-and-a-half story frame house, heated by furnace.

The institution receives orphans, half orphans and destitute or homeless children, from infants to those twelve years old. Illegitimate children are not received except in special cases. It aims to provide home, clothing and christian training, and to maintain the relation between parent and child. It also aims to give the children the rudiments of a good English education, instruction in simple and useful labor suitable to their age, and to sow in their hearts the seeds of the christian religion.

Funds are derived from contributions and a small stipend for board when friends are able to pay.

Estimated value of property, \$8,000.

Current expenses for year ending December, 1888, \$2,200.

Number of inmates during the year, 47. Present at close of the year, 25.

*The Washburn Home*, Nicollet avenue, near Lake Harriet.

*President of Trustees*—Hon. W. D. Washburn.

The late Gov. C. C. Washburn left by will \$300,000 to endow an orphan asylum, and \$75,000 for the erection of a building. The will provided that in case the trustees should expend more than \$75,000 upon a building, the building should remain vacant, as a witness to the failure of the trustees to carry out their instructions, and until the interest of the endowment should pay the indebtedness.

The building is of brick, trimmed with Lake Superior sandstone; length one hundred and fifty feet; width eighty feet. The building is three stories with a basement. The first floor contains dining rooms, school rooms, committee room, reception room, nursery, offices, etc. The second floor contains assembly hall, superintendent's and teachers' rooms, dormitories, and hospital. The third floor contains dormitories and linen room. The building is heated by steam, and is especially well ventilated. There are fireplaces in all the rooms. The building is well lighted. The institution opened for reception of inmates about Nov. 1, 1886. Gov. Washburn in his will directed that "any child under fourteen years of age, whether orphan or half orphan, shall be received without any question or distinction as to age, sex, race, color or religion, and shall be discharged at the age of fifteen, or as near that age as may be consistent with the terms into which the year may be divided, as it is not my intention that the asylum shall be used as a hospital."

The land attached covers twenty acres. Vegetables are raised and cows are kept. The children are kept till they are fifteen years old. If without friends, however, a home is secured and they are under the guardianship of the institution until they become of age.

Estimated value of property \$150,000.

Current expenses for 1888, \$7,000.

Total number cared for during the year, 60; average number during year, 58; number present November 30th, 60.

#### ST. JOSEPH, STEARNS COUNTY.

*St. Benedicts Orphan Asylum.* Incorporated May 26, 1884.

Superioress, Mother Scholastica, O. S. B.

The institution occupies two frame buildings situated on the convent grounds, containing kitchen, dining room, three recreation rooms, two infirmaries, sewing room and two dormitories, all heated by stoves.

The asylum receives "orphans and destitute children of any denomination and gives them a practical and christian education and training."

The institution is supported by an annual diocesan collection, also by fees paid by surviving parents and relatives at the rate of \$3, \$4, and \$5 per month.

Running expenses for the year, \$1,596. The total number of children (nearly all boys) cared for during the year, fifty-two. The average during the year was thirty-six.

#### ST. PAUL.

*Protestant Orphan Asylum*, corner Marshall avenue and St. Albans street.

*President*—Mrs. Geo. B. Young.

*Matron*—Mrs. M. J. Bingham.

The institution receives orphans and destitute children. Its aim is to care for the children, and to place them in suitable homes as fast as possible. The building, erected in 1885, is of brick, three stories in height, with a two-story L. Capacity, seventy-five inmates. The building is admirably planned. It is heated by steam, well ventilated and lighted. It contains a sick ward, five dormitories, each 16x32 feet. A laundry, store-room and play rooms are in the basement. Kitchen, dining rooms, reception room and school rooms are on the first floor.

Five dormitories and sick room, each 16x32 feet, are on the upper floor. Six additional rooms have been added. Estimated value of property, \$40,000. Estimated current expenses for year ending May 1, 1888, \$6,769.24. Number of children in the institution November 30th was 50. The institution is supported by voluntary contributions and annual subscriptions.

*Catholic Orphan Asylum for Girls*, Marshall avenue.

*President* — Rev. John Shanley.

The building was erected in 1885. Capacity, 150. It consists of three stories and a basement. The basement contains kitchen, store room, dining rooms and play rooms. Land, five acres.

The institution is supported by collections throughout the diocese and by voluntary contributions.

The institution aims "to provide the children with a home during childhood, to give them a christian education, and fit them for the duties of after life."

During the year good homes were provided for 15 children, 18 were returned to relatives, and 3 died.

Estimated value of property, \$52,000; expenses for year 1888, \$6,396.42.

Total number cared for during the year, 113; average number during the year, 70; number present Nov. 30, 1888, 77.

*St. Josephs Catholic Orphan Asylum*, 199 Ninth street.

*President, ex-officio* — Rt. Rev. John Ireland.

*Superintendent* — Mother Benedicta.

Organized in 1876. Estimated value of property, \$18,000.

The brick, three story building erected in 1880, has a capacity of sixty to seventy. The building is 40x75 feet. The basement contains kitchen, laundry and two dining rooms. The day rooms are on the first floor; the sick ward and three dormitories in the upper story. Heat by stoves. City water. Grounds 120x200 feet.

The institution is supported by voluntary contributions and monthly dues from members of St. Josephs Orphan Society. It receives children "without means of support and some that are able to pay partly for their own support." The institution undertakes "to educate and bring them up that they may become their own supporters, and to make good Christians and good citizens of them."

No report was received for 1888.



## VASA.

*Orphans Home. Superintendent*—Louis Melin.

Under the auspices of the Swedish Evangelical Lutheran Conference of Minnesota.

The building erected in 1866 was destroyed by a cyclone in 1879, when the frame building now occupied was erected. It is a two story building, 40x24 feet, with a wing 32x36 feet. Capacity, forty inmates. It has a kitchen 16x24, laundry 12x16, dining room 16x36, day rooms 24x22, sick ward 24x22, and dormitory 36x32. Heated by furnace. Water from a well. Land, 123 acres.

The home is supported by voluntary contributions. It receives "all classes except the vicious," and aims "to fit them for the common duties of life."

Organized in 1865. Estimated value of property, \$12,500.

Running expenses, year ending Dec. 31, 1888, \$2,425.

Number of inmates at close of year: Male, 25; female, 9; total, 34. Average number during the year: Males, 31; females, 8; total, 39.

## INDUSTRIAL SCHOOLS AND KINDERGARTENS.

## MINNEAPOLIS.

*The First Baptist Free Kindergarten* was opened in 1883.

No report received.

*Pilgrim Kindergarten Association*, 211 Twentieth avenue North.

Organized October, 1885.

The school is supported by pledges, membership fees, and some aid from the city mission.

No report received.

*The Plymouth Kindergarten and Industrial Association* maintains a free kindergarten at the Bethel on Second street, between Fourteenth and Fifteenth avenues South, Minneapolis. Commenced operations Jan. 1, 1880.

*President*—Mrs. Elisha Morse.

The Bethel is a large two story building. Estimated value of property, \$10,000. Estimated current expenses for year ending November, 1888, \$2,500, of which Plymouth church contributed \$1,200. The first floor contains the Bethel, two large rooms for

kindergarten, kitchen, bath room, cloak room, janitor's room. Second floor contains a nursery, 20x24, sleeping rooms for matron and family. The kindergarten is in session ten months in the year and averages about one hundred children daily. On Saturday morning a kindergarten meets under the auspices of the Y. W. C. T. U. In the afternoon a large class of children and some women are taught sewing and cutting garments. The nursery department, intended to take care of children of working women, is not yet much patronized.

In addition to the above, Plymouth church carries on an industrial sewing school for girls, and a school for teaching boys carpentry. Rooms are rented for the purpose. About one hundred children are taught.

*Westminster City Mission* maintains two kindergartens, one at Riverside Flats with an average attendance of 65 children, and another in connection with the Hope Mission averaging 56 children. The mission also supports industrial schools averaging 225 inmates.

Estimated current expenses for the schools and kindergartens last year was \$1,400.

#### ST. PAUL.

*Plymouth Church Industrial School* is maintained by the Young Peoples Association of Plymouth Congregational church, under the direction of Mrs. J. W. Fairbanks. Little girls are taught sewing, etc.

*Relief Society Industrial School* is maintained by the Ladies Auxiliary of the Society for the Relief of the Poor, at their rooms, under the direction of Mrs. H. C. Burbank. Kitchen, garden work, sewing, etc., are taught.

*The Free Kindergarten Association* — Rev. E. C. Mitchell, president and Mrs. C. Ludwig, solicitor. The association maintains three kindergartens, one at the rooms of the Relief Society, one at the West Seventh street bridge, and one in West St. Paul. The schools are efficiently managed and are doing good work.

*School for Deaf Mutes*, 536 Mississippi street.

This school is under the charge of the ladies of St. Marys Home.

At the date of the report the school contained 21 pupils, including boys and girls, boarders and day scholars. The methods of teaching are the sign and the oral.

## HOMES FOR THE FRIENDLESS AND FOR OLD PEOPLE.

## FARIBAULT.

*The Minnesota Home for Aged and Infirm Women.* Organized April 5, 1887, by a society of ladies numbering seventy members.  
*Secretary*—Mrs. Kate D. Cole.

The society owns a lot valued at \$600. No building has yet been erected, owing to lack of funds.

## MINNEAPOLIS.

*Home for Children and Aged Women,* Thirty-second street and Stevens avenue. Organized in 1881.

Capacity, one hundred children and thirty old ladies. Receives orphans, half orphans, and friendless old ladies.

*President*—Mrs. John S. Pillsbury, Fifth street and Tenth avenue Southeast.

*Matron*—Miss Kimberly.

The aim of the institution is to "educate, clothe and teach them to work and find them pleasant and good homes."

The home was originally in a very small house, but in 1886 it removed to the present building. The building is of yellow brick, trimmed with terra cotta, built in colonial style. Consists of two stories with a basement. The basement contains a kitchen, laundry, school rooms and play rooms, two dining rooms, parlor, reception room, matron's room, offices, sitting room. The rest of the house consists of two dining rooms, parlor, reception room, matron's room, nursery, offices, sitting room, two sick wards, five dormitories. The building is heated by steam and ventilated by a heated flue in the smokestack. The institution owns twelve city lots.

The institution is supported by donations and by the churches.

Until recently the work of this home has been confined to children, but in 1885 the scope was enlarged so as to make provision for aged women as well.

Estimated value of property, \$50,000.

Population, total number during the year, 150; 60 males and 90 females. Remaining Nov. 30, 1888, seventy, of whom six are old ladies.

## ST. PAUL.

*Home for the Aged*, 19 Wilkin street, St. Paul.

Organized 1883.

Conducted by the Little Sisters of the Poor.

*Superioress* — Mother Marie Christiana.

The home occupies two three story buildings, one of frame and one of stone. Capacity, eighty-six. The frame building contains the kitchen, laundry, dining room, etc. The buildings are heated by stoves and supplied with city water. The Sisters own five lots.

The estimated value of the property is \$11,000.

There are no funds and no fixed incomes except the charity collected daily from door to door. The Sisters expended last year in cash about \$5,250, of which \$3,500 was paid for repairing buildings, and \$2,250 for furniture and miscellaneous expenses.

"The aged and infirm poor, over sixty years of age, who have no homes and are not able to work for a living, are received without distinction with regard to creed or nationality." No entrance fee is required, but "if some happen to have a small sum, we accept it for the good of the home in general."

Average number of inmates for the year: Males, 40; females, 30; total, 70.

The inmates are well cared for, and the charity has public confidence.

*Home for the Friendless*, Collins street.

Organized 1867.

*President* — Mrs. Pascal Smith.

*Matron* — Mrs. Lewis.

Under the auspices of the Protestant churches of St. Paul.

A building on the present site was occupied in 1869. The present building was erected in 1883.

Estimated value of property, \$30,000.

Running expenses for 1888, \$5,000.

Inmates during the year, 158; remaining at close of year, 45.

The building is a frame structure, two and one-half stories high. Capacity, 40. The laundry is in the basement; kitchen, dining rooms, day rooms, etc., on first floor. The building is heated by furnaces, well ventilated and supplied with city water. The institution has one acre of ground, devoted to a vegetable garden and grounds.

The institution receives destitute women and children, and



aims to provide temporary shelter until they can help themselves. Some old persons have remained for life. Some pay a small sum toward their own support.

The home is sustained by voluntary subscriptions.

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## INSTITUTIONS FOR ERRING WOMEN.

### MINNEAPOLIS.

*Bethany Home*, Bryant avenue Southwest, between Thirty-seventh and Thirty-eighth streets, Minneapolis.

Organized in 1875.

*President* — Mrs. C. O. Van Cleve.

*Matron* — Miss C. A. Rhoades.

*Secretary* — Mrs. T. B. Walker.

The institution formerly occupied a rented house. The new building (with three lots) is a gift from Hon. Mr. and Mrs. H. F. Brown, of Minneapolis. The building is 50x80 feet, brick veneered, contains three stories and a high basement. The basement contains dining room, kitchen, pantries, laundry, dry room and cellars. First floor contains reception room, matron's room, physician's room, lavatory, and double nursery, parlor and four rooms for inmates. The second floor is divided into rooms for inmates, except a chapel 18x42 feet. The third floor contains rooms for inmates, lavatory, etc. The house has numerous store rooms, closets and conveniences, clothes chute, trunk elevator, electric bells and speaking tubes. Ventilated by open grates. Water from a deep well.

The Sisterhood of Bethany was organized for the purpose of "aiding tempted and fallen women. In addition to this, our regular work; we have taken, through necessity, the care of the motherless, deserted, homeless infants which become the charge of the city authorities. Twelve or fifteen of these waifs are with us most of the time. We receive none for less than one year. We aim in that time, by religious influences, careful training, instruction in household duties, laundry work, sewing, nursing and so forth, to build a foundation of christian character, to develop the maternal instinct and to fit them for honest self-support. When they leave we provide proper employment but continue supervision, until their conduct removes cause for uneasiness. If the mothers desire to retain the children we

encourage it; if not, we endeavor to provide suitable Christian homes, insisting upon legal adoption."

Total number aided in 13 years, 1,444.

Estimated value of property, \$30,000. Running expenses for fiscal year ending Oct. 1, 1888, \$4,898.24. Capacity from 40 to 50 inmates.

Total number cared for during the year ending Oct. 1, 1888, 202; average number, 84. Number of inmates in the institution Nov. 30, 1888, was 37 women and 35 infants; total, 72.

*House of the Good Shepherd*, corner Twenty-seventh street and Bloomington avenue.

Organized Nov. 3, 1888.

*Superioress*—Mother Mary of the Incarnation.

Estimated value of property, \$38,000. Number of inmates, 20.

The institution is designed to serve the same purpose as the establishment in St. Paul. Two classes of inmates are received: "Women and girls who need reformation, and children who are exposed to evil from the influence of bad example at home or on the street."

#### ST. PAUL.

*The House of the Good Shepherd*, under the Roman Catholic church receives fallen women who desire to reform and aims to reform them by religious influences and by teaching them self-sustaining industry. Sewing is obtained from manufacturing houses in St. Paul and from benevolent ladies in the city.

The St. Paul municipal court committed women, sentenced for offenses against municipal laws, to the House of the Good Shepherd until quarters were recently provided for them in the city work house.

A few young women, deemed susceptible of reformation, are still committed to the House of the Good Shepherd.

Estimated value of property, \$130,000. Estimated current expense for past year, \$16,000. Total number of inmates for the year, 160. Yearly average, 140. Number of inmates November 30th, in the reformatory, 90; in the protectorate, 26; total, 116.

*Minnesota Womans Christian Home*, 651 John street.

Organized October, 1873.

*President*—Mrs. H. D. Gates.

The institution occupies a brick two story house, built for a private residence. Capacity, 18. The rooms are small and inadequate. Heated by stoves. City water. Grounds, 50x100 feet. The institution receives erring women and their illegitimate children. It aims to offer a home to them, to inculcate a desire for reformation and to procure employment for their subsequent support.

In fifteen years nearly four hundred girls and young women have been cared for, besides children. Last year the inmates earned \$227, one-half of which was paid to them.

Estimated value of property, \$7,500. Running expenses for the year ending Oct. 1, 1888, \$1,342.07. Total number cared for during the year, 50. Average number of inmates, 18; number at close of year, 18.

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## INSTITUTIONS TO AID THE SELF-SUPPORTING POOR.

### DULUTH.

*Home Society*. Organized 1885.

*President*—Sarah B. Stearns.

*Secretary*—Mrs. Dr. Goffe.

The society maintains a temporary home for needy women and children, located at 1722 Beach street. Since last report it has purchased a lot and erected a two story building, 30x40, containing eighteen rooms.

“The society temporarily shelters and provides for poor widows and deserted wives, and such young children as may belong to them; also, for overworked young women needing a place for rest, and young girls suddenly thrown upon their own resources.”

The institution is supported partly by fees from the inmates and partly by membership fees of the society.

Estimated value of property, \$8,000, which is unincumbered.

Current expenses for year ending Oct. 1, 1888, about \$1,200.

Total number cared for during the year, 120, of whom 50 were women and 70 children. Number of inmates present Nov. 30, 1888, 12.

## MINNEAPOLIS.

*Womens Christian Association.* President—Miss Emily J. Gray. Secretary—Mrs. Geo. H. Keith.

Organized 1868. The association maintains a boarding house for working women. It owns a brick three story house near the centre of the city with a quarter of an acre of ground. Since last report there have been added a large, pleasant dining room and twenty additional sleeping rooms; largely increased accommodations in the culinary department, with laundry and drying room in the basement and new furnaces.

The institution is designed for young working women, and aims to give them a comfortable christian home at lower rates than can be obtained in ordinary boarding houses.

Total number of inmates for year ending Feb. 25, 1888, 90. Number present November, 1888, 69.

Estimated value of property, \$30,000. Current expenses for year ending Feb. 25, 1888, \$6,175.66.

*The Branch Womens Christian Association*, 85 South Twelfth street. Organized February, 1886.

President—Mrs. A. T. Hale.

Secretary—Mrs. A. C. Morgan.

The branch is part of the W. C. A. work, and is a second boarding home for young women; also the Janet Harrison Home for aged women. This is on ground given the association and supported by bequests. The property is valued at \$100,000. In addition to the maintenance of boarding houses for working women, the association gives temporary relief, finds employment, cares for the sick and endeavors to bring its beneficiaries under religious influences. A missionary gives her entire time to visiting the poor. During the past year the association assisted one hundred and seventy-one families.

*Young Girls Home.* In June, 1888, a branch of the St. Paul Young Girls Home was opened in Minneapolis, under the temporary direction of Miss Jessie Schley, of St. Paul. It is conducted upon the same plan as the St. Paul home, and under similar rules and regulations. "It is often overcrowded, the present capacity being 22. It is doing well. Since the opening



there have been received into the institution from 180 to 200 inmates—a considerably larger number than the St. Paul home received for the first six months of its existence.”

*The Newsboys Home* for homeless bootblacks and newsboys, is located at 20 Sixth street North.

*Manager*—Lowell E. Jepson.

The home is prospering. The boys are well cared for, and soon improve in appearance and manners. There is an evening school during the week and divine service on Sunday. The effort is to give them a good education and obtain suitable employment. The opening of the home was largely due to the devoted work of Mrs. Sarah Farr, who has for several years been the devoted friend of the newsboys.

Estimated value of property, \$2,000. Current expenses for the year ending December, 1888, \$2,000. Total number cared for during the year, 50. Number in the home November 30th, 15.

#### ST. PAUL.

*Mitford House*, 677 St. Peter street.

*President*—Mrs. F. B. Clarke.

*Matron*—Mrs. Drew.

Organized in 1884.

Mitford House is intended to give a home, with its protection and influences, to working women, at very moderate rates. It is provided with a piano and a small library. It is supported partly by the boarders, partly by subscriptions, and an occasional entertainment.

“The house has been steadily gaining in value to self-supporting women, is growing to be self-supporting, or nearly so, and is reported to be one of the most successful houses of the kind in the country.”

Expenses for the year 1888, about \$6,000. Average number of boarders, about 25 per month. Average number for the year, about 300. Number present November, 1888, about 35.

*St. Marys Home*, 318 Somerset street.

This is a Catholic institution, providing a temporary home for working girls, clerks, seamstresses and shop girls, “not excluding any who are worthy and who are in want of a home.” A new building has recently been erected in rear of the home and a shelter room for babies, to assist the mothers who are employed.

during the day. The home is supported by the board fees from inmates able to pay. Others compensate by helping in the laundry attached to the home.

Estimated value of property, \$15,000. Estimated annual current expenses, \$6,000. Total number cared for during the year, 233; daily average, about 20; capacity, 40; number present November 30th, 18.

*Young Girls Home*, 620 St. Peter street.

*Superintendent*—Jessie A. Schley.

Organized under the auspices of the Roman Catholic church, November, 1884.

The home is a frame house three stories high. Capacity, 43. The house is conveniently arranged. The grounds are 66x144 feet. The institution receives respectable unmarried working girls under thirty who are without homes in the city. It aims to furnish a comfortable home at nominal rates and assists in procuring employment and furnishing innocent pleasures. The institution is supported "chiefly by the income received from the boarders, though many donations are made, which are necessary, as there is a debt on the house."

Total number cared for since the opening, up to Dec. 1, 1888, 734; average number, 25; number present at close of the year, 40. Estimated value of property, \$30,000.

*The Newsboys Home Association*, 555 Robert street.

*Secretary*—Mr. Jared S. How.

*Resident Manager*—Miss Grace Johnston.

The home was opened April, 1888, in a rented building. Average number of boys in the home, 15. In addition to these the home has entertained a number of transients. The report states that in order efficiently to carry on the work, an agent ought to be employed and a hall rented for purposes of a club room for the boys.

Miss Johnston has devoted herself with courage and enthusiasm to the work, and the results have been highly encouraging. Up to September, 1888, 92 different boys had lived at the home, of whom 50 were transients, and since the opening 5,507 meals had been served and 1,783 lodgings furnished.

The estimated monthly expense of running the home is \$250, of which amount the inmates contribute about \$100, leaving \$150 a month to be met by subscriptions.

*The Society for the Relief of the Poor*, 141 East Ninth street, St. Paul.

*President*—Ex-Gov. Alex. Ramsey.

*Secretary*—Rev. R. Hall.

*General Agent*—M. L. Hutchins.

The society was organized in 1876 as the Society for Improving the Condition of the Poor, but in 1879 the name was changed.

It owns a brick veneered, two story building, built in 1880. The first floor contains the offices of the secretary and general agent, ladies' parlor, bath room and store room; the second story a large hall. The building is located on a lot 50x150 feet. Estimated value of the property, \$20,000.

The society is sustained by subscriptions of citizens. Its aid is extended to all classes in need.

The work is divided into four departments:

1. The Relief Department, under Secretary R. Hall. During the year 1888, 2,453 applications for relief were received, as against 1,835 in 1887. Aid was extended to 2,257 cases, as against 1,686 in 1887.

2. The Charity Organization Department, under General Agent M. L. Hutchins. This department investigates applications by careful examination, exposes frauds and ascertains to what agency deserving cases should be referred. The general agent has established correspondence with similar agencies in most of the large cities, affording opportunity for wise dealing with the large number of paupers who travel from place to place.

3. The Ladies Auxiliary, under Mrs. J. G. Callahan, superintendent. The ladies buy material and cut it out, then pay poor women for making it into garments, which are given to the poor, or sold to them at nominal prices.

4. The Industrial School Department, under the direction of Mrs. A. C. Burbank, in which poor children are taught sewing, etc., reports an enrollment of over 200 pupils, 25 teachers and 4 officers. Larger accommodations are needed for this department.

*The Day Nursery* is maintained by an association of which Mrs. C. B. Thurston is president. The nursery is located in the basement of the Relief Society building, with suitable accommodations for twelve or fifteen babies. It is under charge of Mrs. L. W. Bordwell as matron. The infant children of working mothers are carefully tended during working hours, the mothers paying a nominal fee of five cents per day. Secretary, Mrs. J. Glass.

*The St. Paul Society for the Prevention of Cruelty*, 141 East Ninth street.

*President*—T. A. Abbott.

*Secretary*—M. L. Hutchins.

Was incorporated under the laws of the state, March 19, 1870, and works for the prevention of cruelty to animals and to children.

The report of the society for 1888 shows the following work done: Cases of cruelty to animals reported, 90; investigated, 80; prosecuted, 4; disposed of without prosecution, 76; disabled, 10; overloading, 25; diseased, 5; killed (humanely), 10; general cruelty, 26. Cases of cruelty to children reported, 21; rescued from ill-treatment, 5; sent from the street to school, 9; runaways returned home, 4; taken from houses of ill fame, 2; death for want of proper care, 1.

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## WOMENS INDUSTRIAL EXCHANGE ASSOCIATIONS.

There are three such societies in Minnesota, located at Minneapolis, St. Paul and Winona.

### MINNEAPOLIS.

*The Womans Industrial Exchange* is located at No. 25 Collom building, Fourth street South.

*President*—Mrs. Mary B. Lewis, 815 Second avenue South.

*Secretary*—Mrs. Dr. Abbot.

*Corresponding Secretary*—Mrs. M. E. Cargill, 25 South Fourth street.

The object of the society is to aid women by helping them to help themselves. To this end the society opened a department for the reception and sale of women's work on commission, and in 1887 opened a lunch room which is liberally patronized, and by aid of which the society is rapidly becoming self-sustaining. An upper room is reserved as a quiet resort for ladies. The association has been increasing successfully during the past year.



## ST. PAUL.

*The Womans Work Exchange* is located at No. 315 Minnesota street.

*President*—Mrs. Charles P. Noyes.

*Secretary*—Mrs. T. S. Tompkins.

*Treasurer*—Mrs. W. S. Alexander.

The object of the society is "to enable women to support themselves, either by selling their work or obtaining for them employment."

The society is sustained by annual dues of managers, yearly subscriptions, commissions on sales, occasional entertainments, and by the receipts of the lunch room.

Goods were sold during the last fiscal year for about 300 consignors. The income during the year ending Nov. 7, 1888, was \$5,012, of which \$4,238 was from sales and \$774 from donations. Paid consignors, \$3,815. Paid for expenses, \$1,038. The board of managers is divided into committees, each having charge of a separate department. The business of the exchange is steadily enlarging.

## WINONA.

*The Womans Industrial Exchange.* The exchange was closed at last report.

## MISCELLANEOUS BENEVOLENT SOCIETIES.

## MINNEAPOLIS.

*The Associated Charities*, room 12, Rochester block.

*President*—O. J. Griffith.

*General Secretary*—George D. Holt.

The Associated Charities has developed into an efficient agency, commanding more and more public confidence and support. Frauds are exposed, cases of need are promptly brought into the proper channel of relief. As one branch of his work, Secretary Holt has sent more than twenty children to the state school for dependent children at Owatonna.

*The Eighth Ward Relief Association.* Incorporated Feb. 25, 1887.

*President*—Wm. H. Tice.

*Secretary*—Robert L. Cox.

The object of the association is to "keep the poor and unfortunate of the Eighth ward temporarily, and find employment, so that they may be able to care for themselves."

The association owns a two story frame building, the rentals from which form a fund which is distributed among the deserving poor.

Last year the association expended \$550.

Estimated value of real estate, \$10,800.

*University Free Dispensary.* Conducted by instructors in the medical department of the university, who give about two hours a day to the free treatment of such worthy poor as may apply for it.

Respectable poor people receive treatment and help who would be unwilling to go to the city hospital, or who dislike to become applicants for public charity.

*The Ladies Auxiliary* has been organized as an auxiliary to the dispensary. The object of this organization is to raise a fund to provide medicines and pay for board and beds in the hospital required by poor people who are treated at the free dispensary.

#### OWATONNA.

*Ladies Benevolent Society.* *Secretary*—Mrs. L. L. Bennett.

“The society is formed by the ladies of all churches and denominations, and is purely charitable.” Pecuniary aid is given, and a large amount of clothing distributed. The society is doing a good work, and saves the city and county the expenditure of a considerable sum.

#### MINNEAPOLIS.

*The St. Vincent de Paul Society.* The Particular Council of Minneapolis was organized in 1886. It embraces the conferences of St. Anthony of Padua and Immaculate Conception, and, perhaps, others.

#### ST. PAUL.

*The St. Vincent de Paul Society.* The Particular Council of St. Paul was organized in 1864.

*President*—M. J. O'Connor.

*Secretary*—J. W. Crosson.

The Particular Council embraces ten conferences: In St. Paul, St. Pauls (organized in 1856), St. Marys, St. Josephs, St. Louis and St. Michaels; in Stillwater, St. Michaels; in Hastings, Immaculate Conception. Three new conferences are about to be organized.

The organization of the St. Vincent De Paul Society is thorough and efficient.

Each conference meets every Sunday, when the members report cases needing relief. "No family can be admitted on the relief roll of the society without a previous statement of its wants made by the committee of inquiry."

Frequent visitation and thorough investigation are required. Relief is given in the form of groceries, clothing, rent, fuel, etc., but seldom in the form of money, and when in that form special care is enjoined to prevent misuse.

The society aims to bring the poor to self-support by finding work and by restricting aid to absolute necessities. Cases entitled to city relief are reported to the city authorities, who generally follow the recommendations of the society.

*The Catholic Central Bureau.* Located at cathedral, St. Peter street wing.

*Secretary*—Lorenzo J. Markoe.

Was established by Archbishop Ireland in May, 1888, to receive strangers, obtain situations for the deserving poor, distribute clothing, collect reading matter for various institutions, collect information concerning charitable institutions and to maintain relations of reciprocal courtesy and assistance with the organized charities of the city as far as practicable. It is not permitted to make any distinctions of creed amongst applicants.

*Ladies Hebrew Benevolent Society.* *President*—Mrs. Julius Austrian.

*Secretary*—Mrs. M. Levy.

To aid the Jewish poor. The society has 73 members who contribute 25 cents, monthly, to a fund. During the year 1888, \$1,110 was expended for charity.

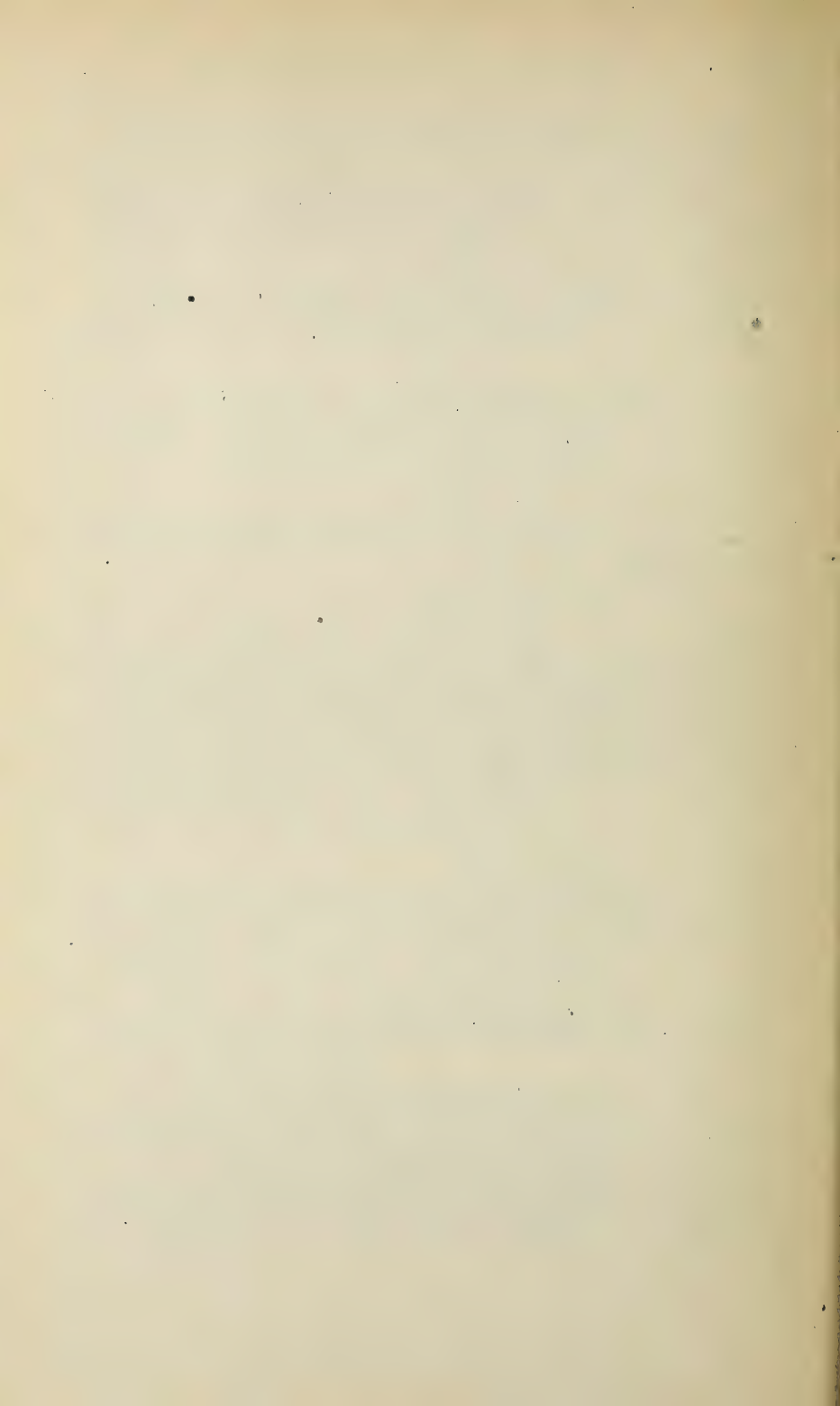
There are other societies in St. Paul for relief of needy Jews, but no reports have been received.

*The Woman's Free Dispensary*, 204 West Ninth street. Organized, 1888.

*President*—Mrs. C. H. Burbank.

The object of the association is to provide funds for the support of university free dispensary and to provide free beds for the deserving poor needing hospital aid.

The dispensary is open daily from twelve to one o'clock. Members of the association pay an annual fee of two dollars each to aid in its support.





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## SUPPLEMENT.

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- I. *Special Report of M. McG. Dana, D.D., of Visits to British Prisons.*
  - II. *Special Report of Hon. C. H. Berry on the Meeting of the National Prison Association at Boston.*
  - III. *Special Report of Hon. H. R. Wells on the Treatment of the Chronic Insane.*
  - IV. *Special Report of Hon. H. R. Wells on the Abolition of County Jails and the Establishment of District Workhouses.*
  - V. *Three Reports of the State Lunacy Commission to the Governor Relative to the State Hospitals for Insane.*
  - VI. *Summary of Legislation Affecting the Correctional and Charitable Institutions Enacted by the Minnesota Legislature of 1889.*
    - A. *Uniform System for Accounting for Public Funds in State Institutions.*
    - B. *Prison Labor.*
    - C. *Transfer of State Prison Convicts to the Reformatory.*
    - D. *Recodification of the General State Prison Law.*
    - E. *Postal Rights of Insane Persons.*
    - F. *An Act Authorizing Counties to Change their System of Caring for the Poor.*
  - VII. *Detailed Account of the Expenses of the Board.*
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## SUPPLEMENT I.

A SPECIAL REPORT BY REV. M. MCG. DANA, D.D., OF VISITS  
TO BRITISH PRISONS, MADE UNDER A COMMISSION FROM GOV.  
A. R. MCGILL.

The present efficient prison system of Great Britain is the result of long and careful legislation, made necessary by the disclosures of prison reformers and the alarm and public criticisms occasioned by the increase of crime. In 1817 was formed the society for the improvement of prison discipline. In 1818 there were 578 prisons in the United Kingdom, to which more than 100,000 prisoners were committed in the year. Fifty-nine of these prisons had no division between males and females. In 445 prisons no employment of any kind was provided. The overcrowding was excessive in some gaols, 13,057 occupying the same space intended for 8,545. In 1823 important prison acts were passed designed to remedy some evident abuses. In 1835 and 1839 followed the acts intended to give the secretary of state certain powers over the designs of new gaols; also as to the matter of discipline and classification. The model prison constructed under the new legislation was that at Pentonville, which was opened in 1842. Here separate cells, well lighted, and ventilated with the best sanitary arrangements, were provided. It contained 520 cells, cost £90,000, or \$450,000, at an expense of £180, or \$900, per cell. The radiating plan was followed, not wholly new, since it had been adopted together with separate cells, in Rome in the beginning of the seventeenth century at San Michele. More than this, the Philadelphia prison at Cherry Hill, which had been visited and reported upon by the English commissioners, suggested the design for the projectors of Pentonville.

In the next six months fifty-four new prisons were built after the same model, which, I may add, is now substantially the plan of all English gaols. Still, much was found defective; overcrowding and lack of uniformity in discipline and dietary prevailed, and there was disagreement constantly arising between the local authorities and the secretary of state. In 1877 came

the most radical act of all, which transferred all the prisons, local and general, to the jurisdiction of the home secretary. A body of commissioners were created, appointed by royal warrant, to manage the new department, the chairman of which was made inspector general of military prisons, and surveyor general of prisons, and this position is now held by Col. Sir Edmund F. Du Cane. At once those features which have made the English system the model one of the world were introduced in classification of prisons, extending even to the setting apart of certain prisons for particular classes of prisoners, uniformity in the discipline of all gaols, the same dietary, the mark system and promotion, with the ticket of leave or parole, moral and literary education, the appointment of the staff by the government, the application to such of the ordeal of civil service examination. Two very obvious gains also resulted from the introduction of this new regime, viz.: the application to all prisoners, wherever confined, of a uniform system of punishment, designed to affect in the best method that which is the great object of all punishment, viz.: the repression of crime and economy in the administration of prisons. This followed in eight years—the number of prisons were reduced from 113 to 59, while the gross amount of prison accommodation only fell from 27,392 to about 23,089. The number of the staff and its cost has been reduced, while its quality has been immensely improved; the cost of administration has also diminished.

Prison officials now constitute a profession, give their life to this calling and as a consequence they become increasingly efficient. The governors of prisons are usually retired army officers and have an ambition to make a fine prison record. No politics enter into the appointments for English prisons, and as a consequence you are impressed with the character and capacity of the prison staff. They are all under the strictest surveillance, can not vary from the rules prescribed, can not administer corporal punishment even, without consent of the board of directors, and for this the "cat" and "birch" are in vogue. Restraints in the shape of irons and handcuffs can not be resorted to without giving immediate notice to the visiting committee of justices. Most of the cases of offenders are met by dietary punishment or loss of grade and privileges.

All the articles of diet are fixed by the governing board and this dietary represents the results of the study and observation of experts. It embraces meat three times a week, soup twice.



Pudding is served on Saturdays, cheese on Sundays. The bread is all weighed—eleven ounces for breakfast, six ounces for dinner, eight ounces for tea. You will find each piece accurately weighed to the smallest fraction of an ounce. If over weight a piece is cut off, if under a piece is inserted in the form of a wedge. With the physician of each gaol rests far more responsibility. He can only vary the dietary in case of sickness. He states what industry each prisoner is fitted for physically and carefully watches the health and determines what, if any, changes may be made in his favor. The chaplain has charge of the school and moral and religious instruction directing the staff of teachers. Attendance on Sabbath worship is compulsory, and to meet the wants of those of another faith a Roman Catholic priest is regularly employed.

The directors visit every prison periodically. Inspection is monthly, and in some weekly, to see that orders given are carried out, that there are no abuses or irregularities, to hear appeals or requests from prisoners and to act magisterially in trying charges against a man.

#### THE MARK SYSTEM.

To every convict is assigned the duty of earning a number of marks proportioned to the length of his sentence. These depend on his industry and general conduct. If earned at the lowest rate he will serve out his full sentence; if at the highest rate possible he will get off about one-fourth of his time. This record by marks applies not only to the amount of remission the prisoner can gain from his sentence, but as well to every step in the classes he must pass through during imprisonment. He has to spend a year at least in each class, and in the same must earn a definite number of marks, else promotion is delayed. So, too, the gratuity he earns in each class is calculated according to the number of marks he earns. Each prisoner is furnished with a card periodically, which records his earnings. If he thinks he has been unfairly dealt with he may make his complaint formally and have his case investigated. Every inmate of a convict prison corresponding to our penitentiaries may, during his sentence, pass through four classes called "Probation," the third, the second and first class. The probation class lasts one year, nine months of which are passed in solitary confinement, the other three on public works. During the second class he sleeps

and has his meals in a separate cell, but works in association under a close and strict supervision and at an employment suited for him. The third and second classes must also last one year each, and the remainder of the sentence is passed in the first class unless promoted into the special class, into which he may enter during his last year. With each promotion come special privileges, and each class wears its own distinctive badge. A convict's servitude is divided into three general periods. The first, lasting nine months, he passes in his cell, working at some industrial and remunerative employment, never seeing his fellow prisoners except when at prayers and exercise. The second period he sleeps and eats in a separate cell, but works in association under close supervision. The third period is that during which he is conditionally released.

Hard work and strict discipline, say the prison directors, must ever be associated with prison confinement and the full deterrent power of them be thus secured. If Sir Edmund Du Cane is to be criticised at all it is for underestimating the value of direct reformatory effort. Mr. Tallack, the most independent and intelligent authority on penology, says: "Du Cane's theory is, first, discipline; second, dietary; third and least, emphasized moral influence of every sort."

#### THE LABOR QUESTION.

The labor question is met by the employment of prisoners on state account plan. They make their own clothing and that of the police of London. They manufacture hammocks, seamen's bags, boarding bags, ships' fenders, the bags for the mail service, baskets, coal sacks, uniforms for the staff, rugs, mats, tinware, anchor frames, registers, stoves, etc. Some of the prisons represent certain industries. At Chatham and Portsmouth they work on government docks and harbor improvements. At Portland on stone quarrying. So also at Dartmoor the prisoners are employed building the prisons and in making the brick needed. Out of 9,107 convicts, July 1, 1882, 3,914 were employed at trades, and of this number 826 acquired their skill in prison. The inmates of English gaols and convict prisons seemed to average low for intelligence. Of the 172,000 committals to the first, 47,036 could neither read nor write, 109,691 could only read or write imperfectly. London alone sends 6,645 absolutely illiterate persons, and their quaint language confirms this. One

says, "My baby died of remembrance on the brain." Another says, "I had discussion on the brain." Another describes his complaint as "asparalsy." Yet another is thus fearfully afflicted: "I have population of the heart, spavined wind and a weak dissection of the chest." Another pathetically states: "I am commanded for a week on exspiction, but I have only a few days incarnation here."

Still crime and criminals are diminishing in Great Britain, which can not be said of any other country in Christendom.

In 1871, with 31,700,000 population, there were 13,000 criminals, or one in every 1,760. In 1884, with 36,000,000 population, there were 14,000 criminals, or one in every 2,500, and taking convict prisons alone this is the exhibit: In 1871, 11,712; in 1885, 8,790, and the tendency still is downward.

I asked John Bright, in an interview I had with him at Rochdale, whether this exceptional record was due to the excellent prison system. He replied that he thought not altogether, but rather to the schools now becoming so universal, to the Sunday-schools, whose moral influence is so great on the youth, and to the augmented and able preventive work, which has visibly reduced the sources of crime.

So far as my personal inspection went, I visited first Wormwood Scrubs, a convict prison under charge of a very efficient governor, Capt. Hervey, who is one of the best prison officials in England — well read in reference to practical penology and of extensive observation through travel in this country and elsewhere. For appointments, character of structure (it is of stone), variety of occupation, this prison stands as high, if not higher, than any other. There was a most elaborate chapel building, that for architectural beauty and finish would surpass most of the finer churches in any city. Here the discipline was perfect, the prison as neat, light, well ventilated as could possibly be. The kitchen, which is the pride of every prison, was a model for its appliances and care. The chapel was being constructed by the prisoners, so was the prison itself, which is comparatively new. The houses for the governor, chaplain and medical director were all fine stone edifices, finished handsomely, and surrounded by gardens and lawns that added to them a peculiar charm. Chatham prison, I found, was amongst the oldest, building-wise. Here the prisoners have been employed in constructing extensive dockyards, covering a space of four hundred and thirty acres. Great basins for repairing and fitting out ships,



large drainage works for the redemption of needed land, a sea and embankment wall nearly two miles long, show how convict labor has been utilized here.

In executing these works every variety of mechanical labor necessary in building or engineering has been done by the inmates of the prison. The large and extensive plant has been made and kept in repair by them, including the construction of the large cranes and derricks in the quarries and the laying of the rails for the quarry wagons to run upon their way to the place for delivery of the stone.

Since 1863, accommodation in cells for 4,771 prisoners has been erected at convict prisons by convict labor. The actual cost to the government for the buildings thus erected between 1863 and 1885 has been £358,700, which, done by contract, would have cost £636,400, showing a clear gain by convict labor of £277,700. In these works the bricks were made, the stone quarried and dressed, the timber sawn and iron cast, forged and wrought from the raw state by the prisoners. I was tempted also to make an extensive detour to the southwest of England to visit Dartmoor prison, near the cities of Plymouth and Devon, both in Devonshire. It is partly a sanitarium prison. Those who are out of health and need the tonic of higher altitude and its bracing air are transferred hither. It has accommodations now for about nine hundred, and is being enlarged. There is a variety here in the industries; some laboring at different trades in the shops, but a larger proportion are kept at work in gangs, quarrying stone, which is of a superior quality on this historic moor. Yet others are employed on the farm, which is quite extensive, building walls, picking out the stone, and constructing drains. The various gangs in this outdoor occupation are in charge of guards, and observation stations of high points of land commanding a view of the various squads, are also manned and can be signaled if any prisoner attempts to escape. I asked the officer if any ever got away. "Not often," he replied, "for if they do they are soon retaken. The reward of one pound to whoever reports their whereabouts makes all the occupants of the moor our allies." "Do all thus readily inform against a fugitive?" "Oh," he added, "for a pound there isn't a man in any of these shanties that wouldn't run in his own mother if she should escape."



## LOCAL PRISONS.

The cells were of stone, well lighted, measured 8x7, had gas jets in them for night use. You do not find in England the iron cage cell nor more than three tiers. Among the local prisons visited were Wadsworth and Holloway, being two of London's four prisons, the former on the southwest side of London, the other a short ride out into one of the suburbs. They were both constructed on the radiate plan, the former accommodating, in separate cells, 1,128. They are sent up from London and are what you would expect from such a city. It was opened in 1851. It cost to run Wadsworth one year £15,000, or \$75,000. The average cost per prisoner comes on the whole to £22 7s., or \$111, viz.: Staff, £13, 11s. 7d., maintenance, £7, 3s. 7d., other expenses £1, 11s. 11d.

A singular and sad fact as to these local prisons is that when you come to those committed above ten times, the women outnumber the men; thus in 1881, 4,148 males, 7,496 females. In 1882, 4,391 males, 6,946 females. In 1883, 4,734 males, 9,316 females. The latter class show a special aptitude for offenses growing out of intemperance, this in part arising from the fact that so many of this class are engaged in public houses. In Holloway the debtors have separate apartments and fare differently from the ordinary committals. Both prisons were models for neatness; fine kitchens, large chapels, and a careful dietary were also conspicuous. In the Birmingham jail the governor said the "short termers" were his greatest embarrassment. He made an earnest plea for a cumulative sentence in the case of those repeatedly sent up by the justices for being drunk or some misdemeanor arising from it. Some of these had come back to him forty and even sixty times, and often the sentence was too short for him to do anything with the prisoner save simply to incarcerate him a day or two. Chaplain Horsley, the man of the most practical prison information in London, if not in England, said he knew a woman who during 1880 suffered no less than nine separate imprisonments of a month each for being drunk or disorderly, and many a poor creature, he adds, has said: "What is the use of giving me a month? It will only be the same thing over again. It is cruel to be always letting me out only that I may return. Why can't the magistrate give me time in prison to get straight, or why can't the government or somebody keep me here till I am cured?" There is no greater farce in

the criminal jurisprudence than this committing for a term so short that the subject has not really had time to sleep off his debauch or being cleaned up before his time is up and dismissed to go through the same round. There is no justice in such a method of dealing with misdemeanants—it wastes public money, keeps municipal courts full of this senseless sort of work, and does the offender no good.

Two other facts prison statistics establish, that the period most prolific in crime is that between the ages of twenty and thirty, the very decade when hope and strength should be greatest, and cares and liabilities least. Second, that crime reaches its maximum in the summer months. Bad times and slackness of work in winter produce less crime and not more. July is in England a heavier crime month than January, and strangely, too, it may sound when I add that the percentage of suicides is greater in the summer than in the winter half of the year. Poverty is not as great a provocative to crime, either, as is commonly supposed.

I visited Bethlehem hospital on the Surrey side of the Thames just over Westminster bridge. It is for the presumably curable insane, and is the oldest institution in England, dating back to Henry VIII.'s time. Dr. Savage, the superintendent, stands at the head of the specialists who have to do with this class. He showed the utmost attention and talked to me about his class with the most bewildering medical terms. He took me all over the institution, giving me the pathological description of the more striking cases.

All this is accounted for. I only got in there by exhibiting that open sesame of difficult doors—the governor's letter.

The hospital is not so large as you would at first imagine, the total number of patients being 317. Of the males, 4.2 per cent were reported cured during the year; on the female side, 5.9 per cent. Dr. Savage is an earnest advocate for the repudiation of the name "asylums," and in lieu of it the word "hospital." If regarded as "retreats" where quiet and retirement can be sought, and not as prisons, there will be, he claims, a greater chance of getting patients early under treatment and therefore better chances of getting satisfactory cures. English laws are very strict about sending a person to a hospital for the insane, and some notable suits which have been decided against physicians who signed certificates adjudging them to be subjects of an hospital, have now made the profession very chary about

signing any paper certifying that a given person is insane. Voluntary patients are also received in Bethlehem, the patient signing his own request to be put under care and treatment, and a second one is required from some relative who is in a position to act. The hospital has a convalescent establishment at Witley for the temporary housing and employment of female patients recently discharged. Such restraints as the gloves, the strong dress and the dry pack are resorted to. The dietary is carefully prescribed. The wages of attendants in this typical institution are as follows: Male attendants, £30 per year for first three years; for next four years £35, and next three years £40. Those in service ten years and upward, £42. Female attendants, £20 for first three years; next four years, £24; next three years, £28; ten years and upward, £28. Attendants in charge of a ward, £5 per annum extra. The staff cost £2,500 per annum, the superintendent receiving £900. All other servants and officers and attendants: male, £2,966 8s.; female, £935, or £3,901. Some of these are not boarded or lodged, as receivers' clerks, steward's clerk, organist, head carpenter, engineer, etc.

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## SUPPLEMENT II.

SPECIAL REPORT ON THE MEETING OF THE NATIONAL PRISON ASSOCIATION AT BOSTON, JULY 14 to 18, 1888, BY HON. C. H. BERRY, OFFICIAL DELEGATE.

*To Gov. A. R. McGill and State Board of Corrections and Charities:*

Pursuant to the governor's instructions, and as a member of this board, I attended the National Prison Congress held at Boston, from the fourteenth to the nineteenth of July, 1888. The delegates in attendance from Minnesota were Mr. P. G. Hubbell, Hon. J. D. Ludden, Hon. G. E. Cole, and J. W. Brown of the state reform school, and C. H. Berry, member of the state board of corrections and charities.

The session was the most largely attended, and the most important in the range of its discussions, of any that has yet been had. From first to last its proceedings were consistent with the purposes of the association, as announced in its constitution, and singularly harmonious. Great credit is due to the authorities of the city of Boston, and to the clergy, and citizens of



Massachusetts generally, but especially to the wardens and other officers of the several penal and reformatory institutions of that state, for the deep and practical interest they take in the avowed purposes of this association. The men and women who participated, and the part taken by each in the deliberations, will appear in the report, of which, in behalf of the Minnesota State Board of Corrections and Charities, of, and for the use of this state, I engaged copies, to the value of twenty-five dollars. No brief report can give even a synopsis of the proceedings, that would in any sense do justice, and I must be content to refer to the forthcoming report. I may say, however, that President Hayes, in his inaugural address, gave the keynote of much that followed. He said among other appropriate things:

“What the friends of a wisely humane treatment of criminals, and of a more thorough understanding of the nature and causes of crime, especially want, is a full and fair hearing—an intelligent and interested consideration of the question. Hence the organization of this national prison association. Hence this annual meeting of the society here in the city of Boston. All understand that if there is to be a valuable and permanent prison reform, there must be a healthy and vigorous public sentiment on the subject. The evils we deplore, and seek to remove, are not merely in the criminals themselves. Society itself is in large measure responsible for the crimes by which it suffers. Where men and women are badly treated, vice and crime always increase and abound. The children who have known only want and neglect furnish more than their share of the convicts in all prisons. Add to these all who are educated to idleness—who have grown up without habits of labor or the ability to labor—and you have the lion’s part of the prison population. In this aspect of the question as to the causes of crime, the whole community is interested in it, and should give it attention, and earnestly engage in practical measures for its successful solution. All who have given the subject the least sober reflection see that when a large element of population is without regular employment, without education, without homes of their own, not only will discontent and crime increase and prevail, but the foundations of stable government and social order will be imperiled. In our country, with universal suffrage and the other essential features of free government, the causes of crime and the seeds of revolution and anarchy lie close together, and can not be separated.”



Enlarging upon this idea, he made it clearly apparent that education and training of the criminal classes were no less essential to the good of the community than is the general education of other classes. To help the criminal to reform, was at all times constantly urged as a main object to be attained. It was shown that the management of our prisons is, like all interests, controlled by the general tendency of society. That it is subject to continual changes; and that those changes ought to be in the direction of the restoration of the convict, so far as possible, to his place among good citizens. Every principle, fundamental to the improvement of the physical, industrial and moral life of convicts, was discussed, criticised, advocated, and approved; and notably among them, the scientific treatment of criminals, as illustrated in the reformatories of New York, Massachusetts, and Ohio, were urged as instrumentalities for the proper discrimination between different prisoners, and classes of prisoners, and for the education of such as are capable of improvement, so that they may be able, as well as willing, to lead honest and industrious lives.

In this connection the subject of prison labor came in for its due share of attention; and the advocates of almost any restrictions on that subject were strongly condemned. Mr. Brockway, superintendent of the state reformatory at Elmira, N. Y., offered a resolution which was unanimously adopted, recommending the whole subject of "Prison Labor" to the consideration of an interstate conference, to be formed by appointment by the several governors of the states, conjointly with the executive committee of this association.

Prof. Wayland, of New Haven, urged that productive labor in prisons is absolutely essential to the health, discipline, well being, and moral and mental reform of the prisoner. He moved: "*Resolved*, that, in the judgment of this association, productive prison labor is an indispensable factor in the work of prison reform, and that any scheme which has a tendency, direct or indirect, to promote or permit the idleness or unproductive labor of prisoners, will inflict irreparable injury upon the prisoner, the workingman, and the state."

This sentiment was approved, and the resolution adopted, with barely one dissenting voice, that of Dr. Patton, warden of the state prison at Jeffersonville, Ind. The so-called O'Neill bill, now pending in Congress, providing that no articles made in prisons shall be sent outside of the state in which they are

produced, did not seem to have any friends, as I think it should not have.

Mr. C. H. Reeve, of Indiana, touched one of the great evils of the day, and one of the prime conditions of pauperism and crime, in condemning the willingness of the church and the state to allow marriage between diseased and incompetent parties with the sure entailment of diseased brain substance, and diseased bodies, for the care of society, when no such neglect would be allowed, where one could prevent it, among the domestic animals. The christian church, in his view, was greatly at fault in not protecting the family from the consequences of disastrous alliances. Dr. Wey, of the New York State Reformatory, struck a responsive chord when he urged the care for a proper physical training, as indispensable for the moral training of convicts, as for their physical health. Mr. Richard Vaux, of Pennsylvania, advocated in a somewhat revolutionary paper, that a special education was needed for the securing of proper officers to take charge of prisons; and that their appointment should be regarded as one of the most sacred and honorable trusts of the state. This is particularly important, if the present aim at reformatory measures shall be encouraged, since the commutation of sentences by the action of any but disinterested and properly trained persons would greatly impair the ends of justice as administered in the courts.

It is needless for me to say that I cordially indorse each and all of these sentiments, and would, if I could, deeply impress them on the citizens of this state. Some of them may be a little revolutionary, or may so appear to some, but they are all reformatory, and steps in accord with modern and more advanced thought.

I can not advance beyond this meager epitome, of some of the measures that were urged by this congress; but they indicate the drift of thought and purpose of the earnest and able men who are giving their services to the national prison association; and they are enough to put the reader on inquiry in the report, where the full record may be found.

The next annual congress will be held at Nashville, in the State of Tennessee, at such a day in November, 1889, as the executive committee may designate.

C. H. BERRY,  
*Delegate.*

## SUPPLEMENT III.

## SPECIAL REPORT OF HON. H. R. WELLS, ON THE TREATMENT OF THE CHRONIC INSANE.

*To the Board of Corrections and Charities :*

As requested, I respectfully submit my views briefly in the matter of the treatment of the chronic insane. The tendency has been, and is to a very large extent, to impose upon the state, as far as possible, the burden of maintaining almost exclusively the care of the criminal and dependent classes and to a large extent the educational interests of the state. To such an extent has this policy been carried that we find state public institutions so multiplying and the state charge so great, that the practical business sense of the people is becoming interested, if not alarmed, and the outcome contemplated with a degree of perplexity to say the least. The estimate for the support of the charitable institutions alone, for the ensuing two years, is over \$2,000,000, and the tendency is onward. While it may be, and is, a matter of state pride that our people lend willing, generous aid to the care of the unfortunate and to the upbuilding of our institutions, there must come a time when this tendency will be checked and efforts made to localize and minimize the great burden, else our state policy will become too unwieldy, and such extravagance, and possible profligacy, obtain, as to hazard, in the rebound, the whole system itself finding us unprepared, it may be, to cope with the emergency. The more localized public burdens are, the better as a rule and more economically they are administered.

How best to accomplish this result? As to the prison system — I had the honor to submit a paper recently suggesting the construction of no more state prisons, and the adoption of the district prison and workhouse plan, thus ridding us at once of the county jail nuisance and dividing the expenses of the penal system between the state and such limited number of counties as will contribute their prisons for state uses, the state to fit them for such industries suitable to the respective localities and to pay reasonable compensation for state convict support, the institutions to be administered under state supervision.

I may remark in this connection that our high schools receiving state supervision and aid, might perform, in a degree, with in-

creasing efficiency, part of the work of the state normal institutions. It might be well to consider whether the further construction of normal institutions by the state may not with advantage, at least without disadvantage, cease. We have four, I believe, now; that number might be reduced, and those remaining advanced in grade, while the high schools grow into greater usefulness and give them further relief.

In the matter of the insane (doubling in the state every seven years) it must be conceded that more than one-half those now being cared for in the state hospitals are being entertained rather than treated—in fact they need no treatment. They are of the class known as harmless, chronic insane. Sound and healthy in body, they while away the days and months in comparative listless inactivity, and this inducing melancholia and mania rather than improvement in mental condition. How can this best be remedied? Shall the state continue the construction of great state institutions? No other state cares for all its insane in this way, and why should Minnesota attempt it further? Wisconsin, by its actual experience in the past eight years, has, I believe, demonstrated that the remedy is in the county asylum system. Minnesota has three state hospitals, and a fourth is actually contemplated. Wisconsin has two, and I was informed by Mr. Giles, one of the best observers, and who has had much to do in building up their system, that if one of their state asylums should burn, the state would not rebuild it. They have now twenty county asylums, in which are confined, or rather, given homes, more than half the insane population of the state. The advantages actually obtained are, they are cared for at half the expense, the cost per capita being eighty-eight dollars average in the county asylums against one hundred and seventy-nine dollars in the large institutions.

The state saves the cost of construction of huge and expensive state hospitals, while to the counties, the cost of their asylums for the accommodation of from sixty to one hundred patients is comparatively small, one-fifth the state cost.

The cost of superintendence and management is not much greater than the present cost of operating and managing the county poor farms in the state. But the great and material advantage is to the patients themselves. They are brought into more immediate contact with their old home relations and friends. Their minds are occupied in caring for themselves, tending their rooms, and in assisting in working the farms, thus



aiding in their own maintenance. Experience shows that by this means very many improve from day to day; drift out among the population, becoming again productive members of the community. Too much can not be said in favor of this system for the care of the class of insane referred to. It is the happy medium between the old poorhouse and jail enormities, and the unwieldy, overgrown state hospitals, where the individual is apt to be lost in the multitude, to his friends and to the world. It is said that it is impracticable to establish this system in this state, as we are now launched on the sea of state provision and have drifted so far out that we can not get ashore. I think with a disposition to reach the end sought, the result can not be doubted. Suppose the burden of support in the state institutions is reimposed on the respective counties of that class of chronic, harmless insane, at the present average cost per capita per week to the state, exceeding \$3 per week, then with the proffer on the part of the state to those counties having a population of 20,000 or more, which will construct hospitals of their own under the supervision of the state, to accommodate more than 100 patients, that the state will pay to such county an amount not to exceed \$1.50 per capita per week for care and maintenance, the asylums would no doubt be forthcoming, as was the case in Wisconsin, where most of the counties struggle for the privilege of building and owning their own institutions.

These suggestions are hastily made, without any intention of criticising the administration of our ponderous hospitals for the insane, but to bring the attention of the board into a closer or fuller consideration of the problem, and with a view, as I deem it, to the best interests of the state and of the unfortunates themselves.

Respectfully submitted,

JAN. 8, 1889.

H. R. WELLS.

## SUPPLEMENT IV.

## SPECIAL REPORT OF HON. H. R. WELLS ON THE ABOLITION OF COUNTY JAILS, AND THE ESTABLISHMENT OF DISTRICT WORK-HOUSES.

*To His Excellency, A. R. McGill, Governor,*

SIR: I have had the honor during several years past to submit, informally, to the board of corrections and charities, suggestions looking to a modification of our prison system in the state, and in obedience to the directions of the board at our last session, I herein submit in a more formal manner the views then expressed, without attempting such elaboration as the subjects demand, but in the hope that the suggestion may be tested by those whose experience and special information in those important matters enable them to determine whether good results may be attained in their practical application.

The administration of our penal statutes is designed, first, for the protection of the community from the depredations of the lawless; second, adequate punishment of the offenders; and, third, their reclamation and reformation. Aside from homicides and such petty offenders upon whom fines are imposed, we are practically limited in this state to commitment of criminals to the common jail or to the state penitentiary, inadequate, as is believed, for the accomplishment of the ends sought.

Our common jail is an excrescence and justly conceded and denounced by everyone who has given it even the most casual attention, as an abomination and crime against civilization. It is an outgrowth of barbarism, a substitute for the whipping post and chain gang without their merits. Instead of subserving the purpose for which penalties are imposed, as affecting the culprit himself, it is an aggravation and a menace to the state. The old and the young, the experienced thief, the first offender, witnesses and parties simply charged with offense, are incarcerated indiscriminately, and every contaminating influence known to the race is brought to bear to corrupt the mind and morals of those so associated.

No classification is made or attempted; they are warmed, fed and clothed at the public expense and maintained in idleness.

The vicious and depraved delight in giving to others their experiences and make of the jail a veritable school of crime at

the public expense. As a rule they are unwholesome, made just inviting enough to induce the depraved to pilfer to the degree that he may secure committal that he may spend the winter in idleness, clothed and fed by the public and his daily wants attended to by well paid officials. They should be abolished or greatly limited in number, except for temporary detention, and a system of *district prisons* established at local expense but under the supervision of the state, with provision for state aid in part. One should be located adjacent to quarries, where such persons might be confined, who persist in repeated petty offenses, also vicious tramps; others located with such diversified industries that those committed to them may be educated in some useful employment which will enable them to rely upon their own resources upon their discharge, and earn a livelihood with no other capital than their acquired skill. In this system the workhouses, reform schools and some of the jails, three or more now existing and adaptable, may be made to comprise a part. These institutions should bear such titles as would come to be known and would entail upon the discharged different degrees of obloquy, and this with the power given to the courts to commit, and in their discretion to transfer to any one of these prisons, in view of the age, condition of the offender and the offense, would give that classification of penalty and person as is most essential to improvement and reform.

A distinction in penalties is necessary to insure a distinction in crime, for it is certain that if substantially the same punishment is imposed for a less as for a higher degree of crime, the inducement is to commit the double or graver offense. The adoption of such a graded system as is suggested would lessen the commitments by very many to the state prisons, now too frequent, especially of first offenders, and for comparatively trivial offenses, and save to society and for future usefulness many who would else come out of prison so crusted with moral turpitude as to outlaw them from society wherever they may go.

I am glad to know that Secretary Hart, in part at least, has approved these suggestions, and in a recent production, which I have the honor to append and beg to make part hereof,\* he discusses the economic features, in his usual exhaustive manner.

This view alone is, it would seem, conclusive, and demonstrates that the adoption of the system of district prisons would obviate the necessity of building any more prisons by the state

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\* See page 132 of this report.

or of even enlarging the present ones, as it will afford ample accommodations for all our more hardened criminals, committed for the graver offenses and for whom less hope is entertained for their ultimate reform.

In this view no substantial change will be required in the plant of the prison at Stillwater for the employment of the convicts; the class which will be committed there may as well be employed as heretofore, in the foundry, in the manufacture of cars and threshers and the work incident to and needed for their own care, thus affording ample diversified employment for the comparatively few who, under the proposed system, may be committed there and who will be inclined to become productive members of society. The moneys needed then to meet the contemplated change of plant at Stillwater will be much better invested if expended under such regulations as may be provided for the protection of the state, in assisting such counties, properly located, and having extensive jail buildings, which they will contribute for the purpose indicated, to establish such plant as may be essential for carrying out the end sought to be accomplished. The saving to the counties will be very considerable, while they will pay no more for the board of the jail prisoners than now; they will save the construction and maintaining of expensive jails, with jailer's salary, and only incur the additional expense of transportation of prisoners. Such counties as have jails may use them for detention and such other public use as may be deemed advisable. The plan of employment of labor suggested in nowise conflicts with the views of laboring men or with free labor as now represented by the advanced views of the labor organizations. They represent that they decidedly favor the employment of prisoners, and only object to the placing of their products on the market at less than market values.

H. R. WELLS,

*Of the Board of Correction and Charities.*



## SUPPLEMENT V.

## THREE REPORTS OF THE STATE LUNACY COMMISSION TO THE GOVERNOR, RELATIVE TO THE STATE HOSPITALS FOR INSANE.

ST. PAUL, November, 1887.

*To Gov. A. R. McGill, St. Paul, Minn.,*

SIR: The commissioners for the inspection of the insane hospitals of the State of Minnesota have the honor to submit the following report of their recent visitation. The members of the commission met at St. Peter, Minn., Nov. 3, 1887, and organized by the election of Dr. P. H. Millard as chairman, and Dr. D. B. Collins as secretary. In company with the medical officers, we visited the various wards of the hospital. At the time of our visitation there were at this hospital 950 patients, 597 males and 353 females. The wards were in good condition. The north or male wards of the hospital are overcrowded. By reason of this condition, they are obliged to make use of all the available room for sleeping purposes. As a result the dormitories and bedrooms are filled with beds. Rooms intended for one bed have two, those for two have three, and so on through. As a result of this crowded condition of the wards, the inmates are reduced to a small fraction over one-half of the number of cubic feet of air that sanitary authorities claim to be essential to health. This overcrowded condition is less liable to be followed by serious results during the summer than the winter months. The overcrowded condition of the male wards renders it necessary to continue the use of the frame building that was erected for temporary use at the time of the fire. It is a low frame structure and is occupied by fifty-six patients and the necessary attendants. The inclosed drawing will show the arrangements of the first and second floors of the building. The first floor is used as a day and dining room, the second floor as a dormitory. The only means of egress is by a narrow stairway situated about midway of the room and leading to the lower floor. There are five half windows on the south side of the upper story and two full windows in the east and west ends of the room. In case a fire should occur at night, there would be great danger to the inmates. A part of the detached wards are in use and answer the purposes for which they were designed most admirably.

The kitchen, laundry, sewing rooms, and wards furnish employment for about fifty-five per cent of the female. The farm, engine room, pump house, bakery, etc., for about sixty per cent of the males. From the records we find that some form of restraint is necessary in about one per cent of cases. This small per cent could be reduced were it not for the fact that in the wards where disturbances are most liable to occur, the overcrowded condition increases the number of patients per attendant from 13 to 22 and 23. As a consequence, the attendants can not give the patients that care and oversight that they could were the wards less crowded.

On November 4th we visited the hospital at Rochester. In company with the medical officers we visited the wards of the hospital. The general appearance was very pleasing. The patients were particularly neat and tidy in their appearance. In this hospital they are overcrowded in the female department. The centre building and the first wing, east, are veritable fire-traps, and should be reconstructed at the earliest possible moment. Until this is done either iron or wooden doors and shutters, lined with iron or tin, should be provided for all openings between the fireproof and old parts of the structure. This matter should have received the attention of the trustees long ago. About forty-five per cent of the females are employed in the kitchen, laundry, and sewing room, and fifty-five per cent of the males in the engine room, bakery, kitchen, and on the farm. The records show that restraint is made use of in about one-third of one per cent of the cases, and is almost exclusively confined to those patients who are destructive to clothing and other property. The new detached ward is nearly ready for use, and when completed will furnish accommodations for two hundred patients and the necessary help. It promises to be one of the best arranged and most serviceable buildings that has been erected by the state for hospital purposes. We are of the opinion that there should be a detached ward at each hospital for the reception of those patients that are sick. The present accommodations do not allow physicians the chance to remove those that are sick from the noise and confusion incident to the ordinary wards. This building should be under the charge or care of trained nurses, who are much more competent to render intelligent aid to both patient and physician than can be expected at the hands of the average attendant. We are also of the opinion that at each of the hospitals additional medical help

could be made use of advantageously, and that it would be well that one of the assistant physicians at each hospital be a female, and that she be required to reside at the hospital. We are also of the opinion that there is a field of sufficient magnitude in the hospitals at St. Peter and Rochester to warrant the employment of a competent pathologist.

PERRY H. MILLARD, *Chairman.*

HENRY W. BRAZIE.

DANIEL B. COLLINS, *Secretary.*

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ST. PAUL, June, 1888.

*To Gov. A. R. McGill, St. Paul, Minn.,*

DEAR SIR: The lunacy commission would respectfully submit the following report of their June visitation:

The commissioners met at Rochester, Minn., June 12, 1888, and in company with the medical officers of the hospital and Dr. W. W. Mayo, of Rochester, made a thorough visitation of all the wards of the hospital. This hospital has for a long time been rated as one of the most efficiently managed hospitals in the country; and from our observations at this and former visits, we are of the opinion that the superintendent and his corps of assistants are fully entitled to this praise. They one and all appear to be actuated by a single purpose, that of doing the very best for the unfortunates committed to their care that the circumstances will admit. We were particularly impressed with the cheerful and cozy appearance of the various wards and dormitories. The floors are covered with strips of carpet and rugs, the latter the work of the patients. The walls are ornamented with bright and yet inexpensive pictures. House plants are in nearly all the wards. The patients presented a neat and tidy appearance; they were particularly quiet and apparently contented. Special attention is given to the preparation and serving of the meals. The food is of good quality and well prepared. The new detached building is in use, and our predictions in our report of last December are fully verified. The grounds are beautifully laid out, and are made use of by the patients for the purposes of recreation and amusement. No notices to "keep off the grass" are to be seen. Every form of outdoor amusement is encouraged. For the men foot and base ball are the



favorites, and for the women lawn tennis and croquet. At the time of our visit there were 830 patients in the hospital—females, 330, males 500. In all this number there was not a single patient in restraint. The wards, grounds, engine room, carpenter, shoe shop, bindery, and tailor shop furnish employment for a large percentage of the males; the laundry, kitchen, sewing rooms, and wards for the females. Since our visit last December an apothecary has been employed. Additional medical help could be made use of advantageously. The same difficulty is present now that was noted in our last report: the house is so crowded that every available inch of space is made use of for sleeping purposes; rooms intended for one have two or three occupants. This overcrowding is a source of annoyance and trouble to the officers in charge, who, while they exercise the greatest care possible in keeping the violent and troublesome ones by themselves, have to run greater risks than they should be called upon to incur. There is no telling at what moment a homicidal impulse may be developed and carried into effect. Of the truth of this statement our hospitals furnish too realistic examples. We desire to again call your attention to the unsatisfactory method of caring for the inebriate portion of the patients in this hospital. The house is so full that it is impossible to give them separate quarters, and as a consequence they are kept on the wards with the other patients. As a rule they are wholly lost to all sense of honor; they take especial delight in imposing upon the unfortunates around them; and oftentimes resort to acts of cruelty, simply to hear their victims rave and swear. At times it seems as though a return to the old doctrine of an eye for an eye, etc., would be the best way to manage this class. As a rule they grossly abuse privileges conferred upon them, and taking it all in all, they are an ungrateful lot to have around. Either a detached building at Rochester, or a separate institution in the vicinity of St. Paul and Minneapolis, should be provided for this class of unfortunates. We are also of the opinion that a thorough revision of our laws relating to the commitment and care of inebriates is absolutely necessary, and should receive the attention of our next legislature. We again call your attention to the centre building and the first wing east of the centre building at this hospital. They are veritable fire traps, and should be rendered thoroughly fireproof at the earliest possible moment. As long as they remain in their present condition there is danger of a repetition of the sad ex-



perience at St. Peter. It seems to us that any longer delay in rendering this part of the hospital fireproof will subject the legislature to the charge of criminal carelessness.

The commission met at St. Peter June 16, 1888, and in company with Drs. James and Kilbourne, made a thorough visitation of the entire building. While the wards are thoroughly clean and tidy, there is but little done in the way of ornamentation. The walls in the main present a blank and cheerless appearance. What has been done in the way of beautifying is largely confined to those wards that are near to the centre building. Since our last visit Drs. James and Kilbourne have, through letters to persons throughout the state, raised a sum of money, a portion of which they have invested in pool and billiard tables for the benefit of the patients. The patients in this hospital presented a much better appearance than they did at our visit last December, and yet there is room for improvement. The attendants do not appear to be as efficient as they are at the Rochester hospital. While we do not desire to appear dictatorial, we are decidedly of the opinion that many of the methods made use of at the Rochester hospital could be introduced into this hospital with great benefit. This matter is wholly within the control of the board of trustees, and it seems to us that it is their duty to see that the needed reforms are at once instituted. At the time of our visit there were 945 patients in the house — females 425, males 520. The farm, grounds, engine room, kitchen, and bakery furnish employment for a large percentage of the men, and the laundry, kitchen, sewing rooms, and wards for the women. Additional medical help is needed. A detached building is needed at this and the Rochester hospital for acute cases. There is not as crowded a condition at this hospital as there was at our visit last December, and yet many of the rooms and dormitories are overcrowded. There is need of a better system of ventilation in this hospital, and in our judgment a fan located near the engine room, connected with the various wards by suitable flues, would in an effectual manner remedy existing defects.

H. W. BRAZIE, *Chairman.*

PERRY H. MILLARD.

D. B. COLLINS.

ST. PAUL, Dec. 7, 1888.

*To Gov. A. R. McGill, St. Paul, Minn.,*

DEAR SIR: The lunacy commission would respectfully submit the following report of their visit to the hospital at St. Peter. We found a marked improvement in the sanitary and hygienic condition of the entire building, also in the personal appearance of the patients. While this marked improvement has been made we think there is room for still further improvement. A thorough inspection was made of the kitchen, bakery, and stores. The various articles of food are of good quality and well cooked. The wards present a neat and pleasing appearance. A considerable painting and frescoing has been done, the floors improved by painting, rugs, etc. Many articles of an ornamental character have been placed in wards and alcoves, which add to the attractiveness of the hospital. A thorough examination was made of the beds and bedding and the same were found to be in good condition. We found the superintendent and assistants anxious to act upon any suggestions for improvement. The male wards are overcrowded. The addition to the north detached building asked for by the trustees will give needed dormitory space. On the female side of the house there is a lack of single rooms for the actually excited cases. The health of the house is remarkably good, no acute or epidemic diseases being present. We are of the opinion that electric lights should be substituted for the present system, as soon as practicable, at both St. Peter and Rochester. The water supply is ample in quantity and of good quality. Additional furniture is needed in some of the wards, particularly in the new south detached building. The kitchen for this building should be completed and furnished as soon as practicable.

November 21st the commissioners visited the hospital at Rochester, and, in company with the medical officers, inspected the entire building. The various wards and dormitories presented a neat and cheerful appearance. The patients appeared to be contented and in good condition. In our first report we recommended the establishment of special employments, which would furnish work for a larger number of patients than can be employed in the wards, in the kitchen, laundry, bakery, engine room, and on the farm. Dr. Bowers has had in operation for over one year a shoe shop, book bindery, and tailor shop. These have proved

beneficial in every respect. The per capita cost for footwear, including materials of every kind and description, amounted to \$1.40 for the year of 1886 and 1887, and \$1.96 for the year of 1887 and 1888. The repairing which was done in the shop netted a saving of \$5 per day, at the regular prices for such work had they been obliged to have the repairing done outside. All the repairs to harness, etc., are made in this shop. The book bindery has been more than self-supporting. The patient in charge has performed enough work for the hospital at St. Peter to pay for all the materials used during the year. The tailor shop employs from four to six patients. In the sewing room they make the underwear for both men and women, in addition to the bedding, dresses, and other work necessary in an institution of this nature. Other industries can be instituted with advantage and at a small expense. More room is needed in the laundries at both hospitals. Steam mangles should be procured. During the months of July and August the secretary of this commission visited a number of hospitals for the insane, for the purpose of investigation and comparison. In the most of the institutions visited he found that the officers in charge either had in operation or contemplated the establishment of such employment for their chronic insane. At Kankakee, Ill., he found that they were manufacturing all underclothes, stockings, brooms, brushes, baskets, rugs, weaving carpets, upholstering, repairing boots, shoes, slippers, etc., in addition to manufacturing a considerable amount of the shoes and slippers made use of in the hospital. They employ one foreman. The patients perform the labor. The superintendent informed him that it cost less to manufacture the articles mentioned than they could buy them for in the market, and that they were the gainers by reason of the increased number they were able to furnish employment to. Many of the patients thus employed would be left sitting in the wards were it not for these industries. Many of the patients have made good recoveries by reason of the fact that the employment furnished has been useful in causing them to think of something other than their troubles. It breaks in upon the train of thought that they have been accustomed to, causing them to lose sight of their hallucinations, etc., and the establishment in their minds of a healthier and different line of thought, which, being encouraged and stimulated by their work and surroundings, results in recovery. This fact, in and of itself, is of sufficient importance to warrant the expense incident



to the establishment of such industries. At Elgin, Ill., they have the building erected and will start similar industries this winter. At Utica, N. Y., they have the same industries in successful operation. Any thing which will relieve the monotony of hospital life is worthy of trial. Another fact that was impressed upon him was the rigid discipline maintained. In the hospitals visited, which compare with our hospitals, the attendants are uniformed and obliged to attend a school of instruction, where, by means of lectures, recitations, etc., they are familiarized with the various forms of insanity, the best method of caring for the same, etc., etc. They employ a larger number of attendants than we do. Our average is about one attendant to sixteen or seventeen patients; theirs, one attendant to eight or nine patients. They have four grades of attendants and promote from one grade to the next higher as the attendant improves. Their pay is graded and in addition they have what is termed service pay for those who choose to remain in their employ for a term of years. As a result they have a better and more experienced class of attendants than we do. With us a male attendant receives the maximum amount of pay after a hospital residence of six months, and a female after two years. In one respect we are in advance of any state in the Union, and that is the way in which we care for our chronic insane. All of our insane are cared for at our hospitals, while in other states, after an average hospital residence of six months, patients are returned to the counties from whence they came and are cared for by the counties. He visited a number of those county poorhouses or infirmaries and had every reason to feel proud of the fact that he was a resident of a state that believes in caring for her unfortunates "rationally and well." The most of these county houses are in charge of persons whose only qualifications consist of the fact that they are good political workers, or that they will fill the position for a less sum of money than someone else. The only aim that some of the county managers appear to have in view is to see for how small a sum of money they can run their respective county poorhouses. In many of the poorhouses the insane and other inmates were kept together. The provisions for cleanliness were meagre. No skilled attendants were employed and the condition of the insane was pitiable indeed. In concluding this report we would again call the attention of the legislature to the unsafe condition of the Rochester asylum. In view of the fact that the next session of the legislature will be for ninety



days, we would suggest that the legislature as a body visit the various state institutions during the early part of the session and familiarize themselves with the needs and condition of them. We would again suggest the need of additional medical assistants at both hospitals, the erection of a detached building at both hospitals for acute and infectious diseases, the same to be provided with trained nurses. We also believe that the establishment of graded pay for attendants would result in good. Make it an object for good men and women to remain in service. We would also suggest that all attendants be clothed in uniform. The establishment of training schools at both hospitals and attendance upon the same by all attendants be obligatory. A revision of the existing laws, as relate to the insane and inebriates, will be asked for the coming winter. We would renew the recommendations made in our first report as to the establishment of the special industries at St. Peter and the enlargement of those in operation at Rochester.

Yours respectfully,

H. W. BRAZIE, *President.*

P. H. MILLARD.

D. B. COLLINS, *Secretary.*

ST. PAUL, MINN., Dec. 7, 1888.

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## SUPPLEMENT VI.

### SUMMARY OF LEGISLATION AFFECTING CORRECTIONAL AND CHARITABLE INSTITUTIONS, ENACTED BY THE MINNESOTA STATE LEGISLATURE OF 1889.

The legislature of 1889 enacted several important laws affecting the state correctional and charitable institutions:

A uniform system of accounting for public funds belonging to state institutions was established. The appropriations for the state correctional institutions were combined in an omnibus appropriation bill, based on careful estimates. The state prison law was entirely recodified. A prison labor law was passed, requiring the state account system, "as much as practicable," but permitting the contract system or the piece price system for "not to exceed one-half of all able bodied convicts." The state reformatory law was amended, making provision for the

transfer of convicts from the Stillwater prison under regulations to be prescribed by the boards of managers of the two prisons jointly, and authorizing the appointment of a "state agent." Provision was made for the sale of the reform school site, and the removal of the school to Red Wing; also for the transfer of incorrigible boys from the reform school to the state reformatory. Provision was made for a state agent for the state school for dependent children. The duties of the superintendents of the hospitals for insane with reference to reporting the condition of patients to their friends, were defined and a law passed giving insane patients the right of correspondence with one outside person under a system of registered letters.

The more important laws are given in whole or in part in the following pages:

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A. AN ACT TO ESTABLISH A UNIFORM SYSTEM OF ACCOUNTING FOR PUBLIC FUNDS IN THE STATE EDUCATIONAL, CHARITABLE AND CORRECTIONAL INSTITUTIONS, AND TO APPROPRIATE MISCELLANEOUS RECEIPTS FOR THE USE OF THE SAID INSTITUTIONS. ENACTED BY THE LEGISLATURE OF 1889.

*Be it enacted by the Legislature of the State of Minnesota:*

SECTION 1. *Applied to What Institutions.*—There is hereby established a uniform system of accounting for public funds in the following named institutions of the State of Minnesota, namely: the state university, the state normal schools, the state hospitals for the insane, the Minnesota soldiers home, the Minnesota institute for defectives (which shall render a separate accounting for each of the schools composing the institute), the state public school, the state reform school, the state reformatory, the state prison, and all other similar state institutions which may hereafter be established by law.

SEC. 2. *Accounting Officers and Purchasing Agents to be Appointed.*—It shall be the duty of the managing board of each of the state institutions mentioned in section one (1) to designate an accounting officer, whose duty it shall be to keep or supervise the financial accounts of the institutions and to perform such other duties as shall be prescribed by law or by the said managing board. They shall also designate either the said accounting officer or some other officer of the institution to act as purchas-

ing agent, whose duty it shall be to purchase all goods and supplies needed for the institution under such rules and regulations as the said managing board shall prescribe.

SEC. 3. *Institution Treasurers to be Appointed.*—It shall be the duty of the managing board of each of the institutions named in section one (1), within three months after the passage of this act, to appoint an institution treasurer, which treasurer shall be either some trustworthy person residing in the city or village at which the institution is located or some solvent national or state bank in said city or village, except that the state treasurer shall be *ex-officio* treasurer of the Minnesota soldiers home, as now provided by law. The said treasurer shall give bonds in such sum as the managing board shall require, to be approved by said managing board and to be subject to the approval of the public examiner. It shall be the duty of the said treasurer to hold and safely keep all public funds belonging to the said institution which may come into said treasury from any source, and to pay out the same only on written orders signed by the accounting officer of the institution, and countersigned by a member of the managing board who shall have been authorized by vote of the board to sign such orders.

SEC. 4. *Superintendents to Have the Custody of Funds Belonging to Inmates.*—It shall be the duty of each superintendent of the several institutions named in this act to have the care and custody of any funds belonging to inmates of the said institutions which may come into his hands, to keep accurate accounts of such funds on books provided for that purpose, and to pay out such funds under such rules and regulations as may be established by law or prescribed by the board of management, taking proper vouchers therefor in all cases; and every such superintendent shall give bonds in such sum as may be required by law or may be prescribed by the board of managers of such institution, to be subject to the approval of the public examiner, conditioned upon the faithful performance of his duties and the due accounting for the funds intrusted to his care.

SEC. 5. *Miscellaneous Receipts — How Treated.*—(a) It shall be the duty of every officer and employe of the several institutions named in this act to pay over to the superintendent of the institution, without delay, any funds which may come into his hands belonging to any inmate of the institution, and to pay over to the accounting officer of the institution, without delay, any funds which may come into his hands belonging to the institution.



(b) It shall be the duty of the accounting officer of each institution at the close of each month, or oftener, to pay over to the institution treasurer all institution funds which may have come into his hands from sales of public property, board of inmates, labor of inmates, or from other sources, and at the close of each fiscal quarter to draw an order on the institution treasurer in favor of the state treasurer for the amount of all such miscellaneous receipts, and at the same time to forward to the state auditor a statement of the amount of the same and the sources from which they have arisen.

(c) It shall be the duty of the state auditor upon receiving such statement to place in the hands of the state treasurer a draft for the amount upon the institution treasurer, specifying the fund to which the same is to be credited, and upon payment of such draft to place the amount so received to the credit of said institution, adding it to any appropriations that may have been previously made by the legislature for the said institution, distributing to it the several appropriations from which it may have arisen or to the current expense appropriation, according to his discretion; *provided*, that the miscellaneous receipts of the state prison and the state reformatory shall be paid over to the state treasurer monthly instead of quarterly, in the manner as herein provided.

SEC. 6. *Pay Rolls and Bills to be in Duplicate.*—It shall be the duty of the accounting officer of each institution named in section one (1) to prepare a duplicate monthly pay roll or pay rolls showing the services rendered by each officer and employe of the institution, which pay roll shall contain the receipt of said officers and employes for the orders issued to them in payment for their services. Services rendered or labor performed by persons other than officers and employes shall be accounted for on proper vouchers.

The said accounting officer shall require all persons selling goods or supplies to the institution to furnish with such goods, when delivered, bills or invoices, in duplicate, and he may require persons who furnish goods at intervals during the month to furnish also a detailed statement in duplicate at the close of the month. The said bills or invoices shall, whenever practicable, be made upon the bill heads or blanks used by such persons in their business; *provided*, that in cases where it is not convenient for the seller to furnish such bills or invoices the ac-



counting officer may make out such bills or invoices on blanks to be provided by the institution.

SEC. 7. *Vouchers—How Received and Disposed of.*—Each of the original and duplicate bills mentioned in section six (6) shall be inclosed in an envelope or jacket, on one side of which shall be a classification of the items contained in the bill, and on the other side a receipt in the following form:

“Received on the — day of —, 18—, from the — (Here insert the title of the accounting officer) of the — (Here insert the name of the institution) an order on the treasurer of the — for the sum of — dollars, in payment of the within account;” and pay rolls and vouchers for services rendered or labor performed shall be inclosed in similar envelopes or jackets. One of the said duplicate pay rolls or bills, with the accompanying receipts, shall be retained by the said accounting officer in the files of the institution; the other shall be sent to the auditor of state within thirty days after the issuance of an order on the institution treasurer for the payment of the same.

SEC. 8. *Goods to be Checked by the Invoices.*—It shall be the duty of the storekeeper of each institution, or some person to be designated by the superintendent, to check off all goods and supplies, when received, by the invoices, to certify thereon the quantity and condition of the same, and to notify the superintendent or the accounting officer forthwith in case the said goods or supplies do not appear to be of the kind or the quality purchased or bargained for. In case goods are received without an invoice, it shall be the duty of such storekeeper or designated person to make a memorandum bill of such goods and certify thereon, as herein required.

SEC. 9. *Monthly Expense Lists.*—It shall be the duty of the accounting officers of the state institutions named in section one (1) at the close of each month to make, or cause to be made, an expense list for expenses incurred during the month, under appropriations for current expenses, and a separate expense list for expenses incurred under appropriations for other purposes, showing the name of each person rendering service or furnishing supplies, the nature of the service rendered and at what rate, the quantity, kind, price and cost of supplies furnished, and the amount to which each person is entitled by law; *provided*, that the auditor of state may in his discretion allow items of the same class, amounting to less than one dollar each, except food items, to be consolidated on the expense lists as “sundries.” Said ex-

pense lists shall be audited by the managing board or a committee of the same, and shall be certified by the accounting officer of each institution and a member of the managing board, to be designated by the said board, and shall be forwarded to the auditor of state by the accounting officer not later than the eleventh day of the succeeding month.

SEC. 10. *Auditor to Examine Expense Lists.*—On receipt of such certified expense lists the auditor of state shall examine, adjust and approve, suspend or reject the same, and on or before the sixteenth day of each month draw his warrants on the state treasurer for the amounts found due thereon to each institution, and no money shall be paid out of the state treasury for the use of the said institutions except on expense lists duly certified; *provided*, that the auditor of state may, in his discretion, draw his warrants for an amount not exceeding twenty per cent in addition to the amount of said expense list, to be used for the immediate payment of such accounts as he may authorize to be so paid, said payments to be properly accounted for on the next monthly expense list.

SEC. 11. *Unexpended Appropriations to be Canceled.*—It shall be the duty of the auditor of state, upon the passage of this act, and at the close of each biennial period thereafter, to cancel all unexpended appropriations or balances of appropriations which shall have remained undrawn for the period of two years, after the expiration of the biennial period during which they became available under the law; *provided*, that the governor, secretary of state and attorney general may continue such appropriations or balances in force, temporarily, on recommendation of the auditor of state.

SEC. 12. *Miscellaneous Receipts Appropriated for the Use of the Institutions.*—There is hereby appropriated for the use of the several institutions named in section one (1) of this act, all of the funds paid into the state treasury from miscellaneous receipts under section five (5) of this act.

SEC. 13. *Repealing Clause.*—Sections two (2), three (3) and four (4), of chapter one hundred and seventeen (117), of the General Laws of one thousand eight hundred and seventy-nine (1879), and all acts and parts of acts inconsistent with this act are hereby repealed.

SEC. 14. This act shall take effect and be in force from and after its passage.

B. EXTRACTS FROM AN ACT TO REGULATE THE EMPLOYMENT OF CONVICTS, PASSED BY THE MINNESOTA STATE LEGISLATURE OF 1889.

SEC. 2. *Employment of Prisoners.*—Every person convicted of crime and committed to the state prison shall be regularly employed at, and be compelled to perform, a reasonable amount of hard labor in some industrial employment; and no person so committed as aforesaid shall be exempt from such labor and employment unless on account of incapacitating sickness, or other disability, rendering it impossible that such labor be performed.

SEC. 4. *Systems of Employment.*—The managers shall be empowered and required to provide for the employment of such convicts in one or more of three different systems of employment. One usually known as and to be designated the "State Account System," another usually known as and to be designated the "Contract System," and a third usually known as and to be designated the "Piece Price System;" *provided*, that said convicts shall be employed, as much as practicable, under the state account system.

SEC. 5. *Regulation of Labor.*—In providing for and regulating the labor of the convicts under these systems of employment the warden shall, in classifying and apportioning the prisoners to the work, in all cases have in view as well the education and reformation of the individual convict as the pecuniary welfare of the state, and shall, under such rules and regulations as shall have been prescribed by the board of managers, have authority to change any convict from one class of employment to another, as may seem proper and expedient.

SEC. 7. *Letting of Contract Labor.*—The managers may, if in their judgment they deem it proper and expedient, let to service under the piece price or contract system, or both, not to exceed one-half ( $\frac{1}{2}$ ) of all able bodied convicts confined in the prison at the date of such contract or contracts, to the lessee or lessees of the prison shops, or to any person or corporation, such lease to be made in accordance with the law on the subject of prisons including this chapter, and not to exceed the term of two (2) years. Such convicts shall not be leased to any contractor or lessee for less than two (2) years. Such convicts shall not be leased to any contractor or lessee for less than the sum of forty-five (45) cents per day for actual work; *provided*, that such lease shall not be a lease of individual convicts for any specified



time so as to preclude the withdrawal of any convict and the substitution in his place of another when deemed for the best interests of the convict by the warden, under such rules and regulations as shall have been established by the board of managers.

SEC. 8. *Advertising for and Contracting the Labor of Convicts.*—

\* \* \* \* \*

*Provided*, that no bids shall be entertained which shall be for less than forty-five (45) cents per day per convict for work to be performed by the convict. \* \* \* This section shall be construed to allow and authorize the said board of managers to let a part of the convicts to one person or corporation and a part to other persons or corporations, if they shall deem it for the best interests of the convicts and the state.

SEC. 10. *Power of Control Over Convicts Reserved.*—In every contract made pursuant to the authority herein conferred, there shall be reserved to the warden, under such rules and regulations as shall have been established by the board of managers, full power and authority to prevent the demanding or imposition of unusual or severe labor whereby the health and welfare of the convicts may be impaired or their reformation and education may be hindered or retarded, and the said warden may, from time to time, subject to the approval of the board, prescribe all needful rules for the government and conduct of all contractors, their overseers and agents, in relation to the convict, and may require summary dismissal of any individual employed by any contractor in said prison, whenever it shall appear that the presence or the conduct of such individual is prejudicial to the discipline of the prison or the welfare of the convicts.

SEC. 13. *Employment Under State Account System.*—All of the able bodied convicts in the state prison may be employed in industrial labor on state account in such manner and in such trades, occupations or industries, as to the said board shall be deemed for the best interests of the convicts and the state. The board, in its discretion, may provide for one trade or industry or may establish a number of trades or industries, and the warden is authorized and empowered by and with the advice and approval of the board, to purchase all needed tools and machinery for conducting such trade or trades, industry or industries, as the board may see fit to establish. He shall with like approval also be vested with power and authority to purchase in the market all supplies and material needed in the manufacture of any article



or articles in which manufacture the board may decide to engage the convicts or any portion thereof, and shall also have authority to sell and dispose of, to the best advantage of the state, all articles of manufacture produced by the labor of convicts under such system; *provided, however*, that the board shall first employ as many of the convicts as may be found practicable in the manufacture of articles which the state would otherwise necessarily purchase for the state prison and other state institutions.

SEC. 14. *Accounts to be Kept.*— \* \* \* also a statement of all articles manufactured by convicts for the use of the prison and other state institutions, and the market value of the same at the time the same was furnished to such prison and other institutions, and the accounts of receipts and expenditures of the different systems of employment hereinbefore specified, shall be kept separate and distinct from each other.

SEC. 15. *Managers and Officers not to be Interested in Business or Contract.*—Neither the managers, warden, nor any officer of the prison shall be directly or indirectly personally interested in or be connected with any business carried on in or about the prison, nor in any contract or lease, nor in any article manufactured by the convicts, under any contract or lease by the managers to any person or corporation.

SEC. 16. *Appropriation.*—There is hereby appropriated for the purpose of procuring tools, machinery and material for conducting industrial employment under the state account system, out of any money in the state treasury not otherwise appropriated, the sum of seventy-five thousand (\$75,000) dollars or so much thereof as may be necessary.

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C. EXTRACTS FROM AN ACT PROVIDING FOR THE TRANSFER OF STATE PRISON CONVICTS TO THE STATE REFORMATORY AND THEIR RELEASE ON PAROLE, PASSED BY THE LEGISLATURE OF 1889.

(*Amending Chapter 208 of the General Laws of 1889, relating to the State Reformatory.*)

SEC. 14. The board of managers shall have power to transfer to the state prison at Stillwater any prisoner who subsequently to his committal shall be shown to have been at the time of his

conviction more than thirty (30) years of age or to have been previously convicted of crime; and may also transfer any apparently incorrigible prisoner whose presence in the reformatory appears to be seriously detrimental to the well being of the institution, to the state prison, and such managers may, by written requisition, require the return to the reformatory of any person who may have been so transferred. They may also cause to be transferred any prisoner or prisoners confined in the state prison who is serving out his first sentence in the state prison, to the reformatory, under such rules and regulations as the board of managers of said state reformatory and the board of managers of the state prison in joint session shall prescribe.

They shall have authority to receive and imprison inmates of the state reform school who may be transferred by the board of managers of the state reform school to the state reformatory in accordance with the provisions of law in respect thereto, and such inmates, when transferred to the state reformatory, shall be under the guardianship of the board of managers of the said reformatory, during their minority, subject to parole and release in like manner, and under like conditions, to persons sentenced to said reformatory.

Such board of managers shall have power to establish rules and regulations, under which prisoners within the reformatory may be allowed to go upon parole outside of the reformatory buildings and inclosures, and to remain while on parole in the legal custody and under the control of the board of managers, and subject at any time to be taken back within the inclosure of said reformatory, and full power to enforce such rules and regulations, and to retake and re-imprison any convict so upon parole, is hereby conferred upon said board, whose written order, certified by its secretary, shall be a sufficient warrant for all officers named in it to authorize such officer to return to actual custody any conditionally released or paroled prisoner, and it is hereby made the duty of all officers to execute said order, the same as ordinary criminal process.

The said board of managers shall also have power to make all rules and regulations necessary and proper for the employment, discipline, instruction, education, removal, temporary or conditional, release or return as aforesaid, of all convicts in said reformatory.

The board of managers are hereby authorized to receive and retain during their term of sentence to the state prison such

prisoners so transferred from said state prison as aforesaid, and the laws applicable to the convicts in the state prison, so far as they relate to the commutation of imprisonment for good conduct, shall be applicable to said convicts when so transferred.

SEC. 2. That said chapter is hereby further amended by adding thereto the following sections, twenty-one (21), twenty-two (22), twenty-three (23), twenty-four (24) and twenty-five (25).

SEC. 21. *Board of Managers Shall Meet in Joint Session.*—It shall be the duty of the board of managers of the state prison, and the board of managers of the state reformatory, to meet in joint session at the state capitol in the city of St. Paul, on the second (2d) Tuesday in May, one thousand eight hundred and eighty-nine (1889), and as often thereafter as the governor may direct, and the governor shall be *ex-officio* president of such joint session. The said boards of managers, in joint session, shall prescribe rules and regulations for the transfer of convicts from the state prison to the state reformatory, and of inmates of the state reform school to the state reformatory; *provided*, that no life convict shall be transferred from the state prison to the state reformatory, until he shall have first served a term in the state prison of at least twenty-one (21) years, less the diminution which would have been allowed by law for good conduct had he been sentenced for a term of twenty-one years. They shall also consider any matters that may be brought to their attention pertaining to the joint interest of the two institutions, and shall take such action as they shall deem proper thereupon.

SEC. 22. *Parole of Life Convicts.*—No life convict who shall have been transferred to the state reformatory shall be paroled until the approval and authority of the governor shall have been given for such parole, and no such paroled life convict shall be unconditionally released by the board of managers; but such convict shall remain in the legal custody of the said board of managers and be subject at any time to be taken back within the inclosure of said reformatory, during the term of his natural life, unless the governor shall sooner issue a pardon for such convict.

SEC. 23. *State Agent May be Appointed.*—The said boards of managers in joint session may at any time when they deem it necessary, appoint a state agent for the aid and supervision of discharged prisoners. The said state agent shall receive such salary as they shall fix and determine, together with the necessary traveling expenses incurred in the discharge of his duties,



and shall perform such duties, as they may prescribe in behalf of prisoners discharged from the state prison, the state reformatory, or any other public prison in this state. It shall be his special duty to assist discharged prisoners in obtaining employment. The salary and expenses of the said state agent shall be paid from the current expense fund of the state prison, and state reformatory, and shall be divided between the two institutions in proportion to the appropriation made by the legislature for their current expenses.

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D. EXTRACTS FROM AN ACT TO PROVIDE FOR THE MANAGEMENT OF THE STATE PRISON AT STILLWATER, AND TO APPROPRIATE FOR THE EXPENSE OF SAID PRISON ANY FUNDS ARISING FROM THE LABOR OF PRISONERS AND OTHER MISCELLANEOUS RECEIPTS OF THE PRISON, PASSED BY THE LEGISLATURE OF 1889.

*(Recodifying the General Prison Law.)*

SEC. 2. *Managers — How Appointed — Term of Office.*—That the government and control of the Minnesota State Prison and of the prisoners sentenced thereto, shall be vested in a board of managers to consist of five members, no more than three of whom shall belong to the same political party, to be appointed by the governor, by and with the consent of the senate; one to serve one year, one two years, one three years, one four years and one five years, as may be designated by the governor at the time of their appointment; and at the expiration of the term of office of each member of the board, his successor shall be appointed in the manner and by the authority as hereinbefore provided, but for the term of five years; \* \* \* *provided*, that the governor may remove any member of the board of managers for cause, but no member shall be removed until he shall have been allowed a hearing by the governor.

SEC. 3. *Organization of the Board of Managers.*—Immediately after their appointment and confirmation as herein provided, the board of managers shall convene in the city of Stillwater, and shall organize by electing one of their number as president of the board, to serve one year and until his successor is elected. Three members of the board shall constitute a quorum for the organization of the board and for the transaction of all business;



but for the appointment and removal of the warden, and any business relating thereto, a concurrent vote of at least a majority of the members of the board voting by yeas and nays shall be necessary at any regular meeting of said board.

SEC. 5. *Officers Appointed by the Board of Managers.*—The board of managers shall appoint a warden, who \* \* \* shall hold his office at the pleasure of the board of managers.

The board shall appoint a prison physician (who shall be a surgeon), chaplains and a principal teacher, who shall hold their offices during the pleasure of the board. They shall have the power to designate some solvent national bank located in the city of Stillwater to be the treasurer and custodian of the funds of the prison.

SEC. 6. *Officers and Employes Appointed by the Warden.*—The officers and employes of the prison, except those specified in section five (5), shall be appointed by the warden, subject to the approval of the board of managers, and shall hold office at the pleasure of the warden. The warden shall so appoint a deputy warden and an assistant deputy warden, a prison clerk, a steward, a hospital steward, a storekeeper and a matron, together with such guards and other officers as the board of managers may deem necessary for the proper management and discipline of the prison.

SEC. 7. *Board of Managers to Fix Compensation of Officers.*—The board of managers shall fix and determine the compensation of all officers and employes, payable in equal monthly installments; *provided*, that the annual compensation of the following named officers shall not exceed the amounts named, viz.: Warden, three thousand (\$3,000) dollars, together with house rent, fuel and lights; deputy warden, two thousand (\$2,000) dollars, together with house rent, fuel and lights; assistant deputy warden, twelve hundred (\$1,200) dollars; clerk, fifteen hundred (\$1,500) dollars; physician, one thousand (\$1,000) dollars; chaplains, not exceeding twelve hundred (\$1,200) dollars altogether; principal teacher, seven hundred and fifty (\$750) dollars; steward, twelve hundred (\$1,200) dollars, with board and room; hospital steward, nine hundred (\$900) dollars, with his board and room; all other employes such compensation as may be fixed by the board of managers.

SEC. 9. *Duties of the Warden.*— \* \* \*

*Seventh*—To take charge of any property or money belonging to convicts, which they may have at the time of entering the

prison, or which may come into the hands of the warden during their imprisonment; *provided*, that:

(a) He shall cause a careful and accurate record of such money and property to be kept on books provided for that purpose.

(b) He may, in his discretion, give such money, or property, to the family of the convict, with the consent of the convict, taking their receipt therefor.

(c) Moneys coming into the hands of the warden from any allowance made to convicts by the state for good conduct, as hereinafter provided, shall be placed to the credit of the several convicts on the books kept for that purpose.

When it can be ascertained that the family of any such convict is in a needy condition, it shall be the duty of the warden, by and with the consent and advice of the prison managers, to pay the money, or such a portion thereof as may be deemed necessary to said family, taking vouchers therefor, and the warden shall keep a correct account of all convict money so received and disbursed by him, and make a full exhibit of the same in his biennial report to the board of managers.

In case any such convict has no family, or that it can not be ascertained that his or her family are needy, then the several amounts due convicts under this act shall be placed to their several credits, and it shall be the duty of the warden to place the same to the credit of said convicts in a savings bank, to be designated by the board of managers, said bank to give such bonds as shall be prescribed by the board of managers.

No such funds shall be paid by the warden to any person other than the convict, or some member of his family, previous to his discharge from prison, unless the board of managers shall by vote authorize such payment, on request of the convict and recommendation of the warden. \* \* \*

When any such convict is discharged from prison, whether by expiration of sentence or pardon, it shall be the duty of the warden to pay over to said convict all moneys so due, with the interest which has accrued thereon, taking proper vouchers therefor; *provided*, that whenever, in the judgment of the warden it is for the best interest of any discharged convict, he may pay the amount so due to said convict in installments extending over a period of not more than six months from the date of such discharge. \* \* \*

*Eighth*—To superintend any manufacturing and mechanical business that may be carried on by the state, pursuant to law,

within the prison; to purchase tools, machinery, and raw material; to sell the articles manufactured and dispose of them for the benefit of the state, and pay over the proceeds of such sales to the treasurer, under such rules as the board of managers shall prescribe. In case the labor of convicts is let either on the contract or the piece system, it shall be the duty of the warden to collect the amount due for such labor from time to time, and pay over the same to the treasurer.

It shall be the duty of the warden, or the deputy warden under his direction, to assign the several convicts to such employment as he shall deem best, and to transfer such convicts from one branch of work to another, whenever in his judgment such change is desirable.

SEC. 10. *Duties of the Deputy Warden.*—\* \* \*

*Third*—When any convict is delivered at the prison it shall be the duty of the deputy warden, or the acting deputy warden, to search the said convict in the presence of the receiving officer, and to take possession of the clothing and any money or other valuables which may be found on his person and make a descriptive list then and there of said articles, with a record of the condition of the clothing and the disposition made thereof. Upon the request of said convict it shall be the duty of the deputy warden to turn the clothing over to the storekeeper, to be kept for said convict until his discharge, but in such cases the convict shall have no claim for clothing to be furnished by the state upon his discharge. All money and valuables shall be turned over to the warden, to be kept for such convict, as provided by section 9 of this act; *provided*, that in the case of female convicts, these duties shall be performed by the matron.

SEC. 15. *Duties of the Principal Teacher.*—It shall be the duty of the principal teacher, under the direction of the warden, with the aid of such assistants as shall be appointed by the warden, and under such rules and regulations as may be established by the board of managers, to conduct one or more schools in the prison, for the instruction of such convicts as may be designated by the warden, in the common branches of an English education.

\* \* \*

SEC. 16. *Duties of the Matron.*—It shall be the duty of the matron: First, to take entire charge of the female convicts, under the direction of the warden, subject to the rules and regulations established by the board of managers. Second, to be in constant attendance at the prison, and to be present invari-



ably whenever the woman's department is unlocked, unless excused by the warden for temporary absence, in which case some competent woman must be provided to take her place.

SEC. 21. *Managers and Officers Not to be Interested in Contracts.*—No member of the board of managers shall be warden of the prison or concerned in the business thereof, or hold any other appointment or place connected with the prison, and no person shall be appointed as a member of said board or to any office or employment of the state in the prison, who is a contractor in the prison or the agent or employe of such contractor, or who is interested directly or indirectly in any business carried on in such prison. And no member of the board of managers or any other officer or employe of the prison shall be interested directly or indirectly in any contract, purchase or sale for on account of the prison.

No person shall be appointed as an officer or employe of said prison who is in the habit of using intoxicating liquors, and a single act of intoxication shall justify a removal or discharge.

SEC. 22. *Prison Officers Not to Receive Other Compensation than that Provided by Law.*—No officer shall receive, directly or indirectly, any other compensation for his services than that prescribed by law, nor shall he receive any compensation whatever, directly or indirectly, for any act or service which he may do or perform for on behalf of any contractor, either for the labor of the prison or for constructing buildings or furnishing of supplies; and a contractor, or employe or agent of a contractor, concerned in such violation shall be expelled from the prison and not again permitted within it as a contractor, agent or employe. Nor shall any officer or employe of the prison receive any gift from a convict, nor any money or other consideration for any service rendered or to be rendered for any convict. For every violation of this section the party engaged therein shall be discharged from office and disqualified thereafter from holding any office in the prison.

SEC. 24. *Miscellaneous Receipts to be Paid into the State Treasury and Appropriated for the Expenses of the Prison.*—All moneys received for the board of the convicts, the labor of convicts, the rent of shops and offices, the sale of manufactured goods or waste materials, and other miscellaneous cash receipts, shall be paid over monthly by the institution treasurer, on a proper order, to the state treasurer, and shall be accompanied by a statement showing from what sources such funds have been received, and



it shall be the duty of the state treasurer to notify the auditor of state when such funds are received by him. The auditor of state shall thereupon credit the amount so reported on his books to the state prison, adding it to any appropriation which shall have been made by the legislature for the support of the prison, the purchase of raw material, or the carrying on of industries in the prison, and there is hereby appropriated for the support of the prison, the purchase of raw material or the carrying on of industries in the prison, in addition to the amounts appropriated by the legislature from time to time, all of the miscellaneous receipts above mentioned.

SEC. 27. *Convicts on Discharge to be Furnished with Clothes.*—

When any convict is discharged from prison the warden shall furnish such convict with a decent suit of clothes at the expense of the state; *provided*, that if such convict shall have to his credit on the books of the prison at the time of his discharge the sum of fifty dollars (\$50) or more, he shall be required to furnish clothing at his own expense; and in case such convict shall so request, it shall be the duty of the warden to act as agent for such convict in purchasing such clothing from any dealer whom the convict may designate; and it shall be the duty of the warden to exercise vigilance to protect the convict against extravagant or unreasonable charges on the part of such dealers; *and provided further*, that in case any convict has not as much as fifteen (\$15) dollars to his credit on the books of the prison at the time of his discharge, the warden shall pay to the convict from the current expense fund of the prison such a sum as shall make the total amount paid such convict on his discharge fifteen dollars (\$15).

SEC. 30. *United States Convicts to be Received — Expenses — How Paid.*—All criminals sentenced to the state prison by the authority of the United States shall be received and kept according to the sentence of the court by which they were tried, and the convicts so confined shall be subject in all respects to the same discipline and treatment as though committed under the laws of this state; the warden shall charge and receive from the United States, for the use of the state, for each convict, forty cents a day for board, the cost of all clothing which may be furnished, and one dollar (\$1) a month for the use of the convict, and if additional guards be required, the compensation of such guards, and no other or further charge shall be made by any officer for or on account of such convicts.

SEC. 35. *Convicts to Have the Privilege of Communicating with the Warden and Managers.*—Every convict in the state prison shall have the privilege of communicating in writing with the warden or the board of managers. The board of managers shall designate the chaplain, or some other officer of the prison, whose duty it shall be, at least twice in each week, to visit each convict in the prison and receive any written communication addressed to the warden or the board of managers, and to deliver the same to the warden. It shall be the duty of the said officer to supply writing material for this purpose when necessary. Every such communication shall be indorsed with the number of the cell of the convict, and it shall be the duty of the warden to acknowledge the receipt of such communication by a written or printed card, indorsed with the cell number, which shall be returned to the convict by the said officer.

Any officer charged with the duty prescribed in this section who shall refuse or neglect to deliver any such communication on the proper request of any convict, may be discharged from office by the board of managers and disqualified from holding office at the prison.

SEC. 41. *Diminution of Sentence for Good Conduct.*—Each convict who is sentenced for a definite term other than life, shall be entitled to diminish the period of his sentence under the following rules and regulations: (a) For each month, commencing on the first day of his arrival at the prison, during which he has not been guilty of a violation of discipline, or of any of the rules of the prison, and has labored with diligence and fidelity, he shall be allowed a deduction of five days from the period of his sentence. (b) After he has passed one full year of his sentence, in which he has not been guilty of a violation of discipline, or any of the rules of the prison, and has labored with diligence and fidelity, the deduction shall be seven days from the period of his sentence for each month. (c) After he has passed two full years of his sentence as above provided, the deduction from his term shall be nine days for each month. (d) After he has passed three full years of his sentence as above provided, the deduction from his term shall be ten days for each month.

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SEC. 42. *Compensation for Good Conduct.*—All convicts confined in the Minnesota State Prison who shall become entitled to a diminution of their term of sentence by good conduct while in prison, in accordance with this act, shall, in addition to said

diminution of their term of imprisonment, receive compensation from the current expense fund for every day, except Sundays and legal holidays, at an average rate of ten (10) cents per day per convict, the compensation to be graded, at the discretion of the warden, from eight (8) to twelve (12) cents per day. The difference in the rate of compensation to be based, not on the pecuniary value of the work performed, but on the willingness, industry and good conduct of the convicts; *provided*, that whenever any convict shall forfeit his good time for misconduct or violation of the rules and regulations of the prison he shall forfeit out of the compensation allowed under this section fifty (50) cents for each day of good time so forfeited; *and provided*, that convicts serving life sentences shall be entitled to the benefit of this section when their conduct is such as would entitle other convicts to a diminution of sentence, subject to the forfeiture of good time for misconduct, as herein provided.

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E. AN ACT TO SECURE POSTAL RIGHTS TO INMATES OF HOSPITALS OR ASYLUMS FOR INSANE, PASSED BY THE MINNESOTA LEGISLATURE OF 1889.

*Be it enacted by the Legislature of the State of Minnesota:*

SECTION 1. *Inmates to Have the Right to Choose Correspondents.*—That it shall be the privilege of each and every inmate committed to any public or private hospital or asylum for the insane in this state, on entering the institution, or at any time thereafter, to choose one individual not connected with the said institution, as a correspondent, with whom the said inmate shall be allowed to communicate freely in writing; and there shall be no censorship exercised or allowed by any of the officers or employes of any such institution over letters written by inmates to such correspondents. Each inmate shall have the right to choose a new correspondent instead of the one previously chosen, every three months, if he or she desires so to do; *provided*, that whenever it shall appear to the state board of corrections and charities, or to their secretary, that the person chosen as correspondent by any inmate is not a fit person to be so chosen, the said board, or its secretary, may require the said inmate to choose a new correspondent.

SEC. 2. *Superintendent to Post Up a List.*—It shall be the duty



of the superintendent of each hospital or asylum for the insane to keep registered and posted in some public place at the said institution the name and post office address of each individual chosen as correspondent under this act and the name of the inmate choosing such correspondent. When any person is chosen as correspondent by any inmate, the superintendent shall notify the said correspondent within three days that he has been so chosen, and inquire whether he will act as such correspondent. In case the correspondent shall decline to act, the superintendent shall notify the inmate without delay and give opportunity for a new choice.

SEC. 4. *Superintendents to Provide Registers and Stationery.*—It shall be the duty of the superintendent of each hospital or asylum for insane to furnish each assistant physician with a pocket register of correspondence in such form as the state board of corrections and charities may prescribe, and to keep on hand a supply of stamped envelopes, paper and postal cards, which shall be used for such correspondence. Such registers and stationery shall be furnished on requisition of the assistant physicians, and shall be paid for from the current expense fund of the said institution.

SEC. 5. *Duties of Assistant Physicians.*—It shall be the duty of each assistant physician, or the superintendent if there be no assistant physicians, in any hospital or asylum for the insane, to carry with him during his daily rounds through the wards of the institution the pocket register of correspondence which shall be furnished by the superintendent. The said assistant physician shall, on the day when any inmate is committed to the institution, or at any time thereafter when the said inmates shall so request, record correctly in the said register the name and post office address of said person chosen by said inmate as correspondent in accordance with this act, and shall report the same to the superintendent.

It shall be the duty of the said assistant physicians, on their daily rounds, to receive the requests of any inmates who may desire to write to the correspondents so chosen, to record the same then and there on the said register of correspondence and, within twenty-four (24) hours thereafter, to furnish or cause to be furnished to the said inmate one or more sheets of writing paper, a stamped envelope and a postal card, addressed to the superintendent and having printed on the reverse side a receipt in the following form: "Received of the superintendent of the



hospital (or asylum) for the insane at ———, Minnesota, a letter written by ———, an inmate of the institution.

[Signed] ——— ”

*Provided*, that the said assistant physician shall not be required to furnish stationery for this purpose to any one inmate oftener than once a week. The inmate shall inclose the said postal card with the letter in the stamped envelope, which shall be legibly addressed to the said correspondent, and shall deliver the same, sealed, to the said assistant physician, who shall deliver the said letter on the same day to the superintendent, taking his receipt therefor, on the register of correspondence.

Whenever any letter or postal card from any correspondent chosen under this act shall be delivered to any assistant physician by the superintendent, he shall deliver the same to the inmate to whom it is addressed without unnecessary delay, taking the receipt of said inmate therefor.

SEC. 6. *Superintendent to Mail and Deliver Letters.*—It shall be the duty of the superintendent, upon receipt of such letter from the assistant physician, if he shall find that the said letter is addressed to a correspondent duly chosen under this act to place such letter or cause it to be placed in the United States mail without opening or reading the same. \*It shall be the duty of the said superintendents to request the said correspondents to write their names on the outside of letters sent by them to inmates. The said superintendents shall deliver such letters to the assistant physicians, to be given to the inmates to whom they are addressed, unless, in the judgment of the said superintendents, the receipt of such letters would be injurious to such inmates, in which case they shall forthwith notify said correspondents that such letters are withheld, stating the reasons therefor, and record the facts in the register of correspondence. No letter written by a correspondent to an inmate shall be opened by any superintendent unless he has reason to suspect that it contains such matter as ought not to be delivered to the said inmate, in which case he shall record the fact that such letter has been opened and the reasons therefor in the register of correspondence.

SEC. 7. *Inmates may Correspond with the Governor and Secretary of the State Board of Corrections and Charities.*—Each and every inmate of any hospital or asylum for insane in this state shall have the privilege of communicating in writing with the governor and the secretary of the state board of corrections and charities in

the same manner and under the same regulations as with the correspondents chosen under this act.

SEC. 8. *Penalties.*—Any superintendent, assistant physician or employe of any hospital or asylum for insane or any person refusing or neglecting to comply with or willingly or knowingly violating any of the provisions of this act shall be deemed guilty of a misdemeanor and upon conviction thereof shall be punished by imprisonment not less than thirty or more than ninety days, or by a fine of not less than fifty or more than one hundred dollars and shall be thereafter disqualified from holding any office or position in any hospital or asylum for the insane in this state.

SEC. 9. *Investigation.*—It shall be the duty of the superintendent of each hospital or asylum for insane in this state, every trustee of such institution, every member of the state lunacy commission and every member of the state board of corrections and charities to investigate any alleged violation of the provisions of this act which may be brought to their attention when visiting any asylum or hospital for insane in this state.

SEC. 10. *Act to be Posted.*—A copy of this act, printed in pica type, shall be framed and posted in every ward of every insane hospital or asylum, public or private, in the State of Minnesota.

SEC. 11. *Repealing Clause.*—Chapter one hundred and forty-six (146) of the General Laws of one thousand eight hundred and eighty-seven (1887), is hereby repealed.

SEC. 12. *When to Take Effect.*—This act shall take effect and be in force from and after the first day of May one thousand eight hundred and eighty-nine (1889).

## F. AN ACT TO AUTHORIZE COUNTIES TO CHANGE THEIR SYSTEM OF CARING FOR THE POOR, PASSED BY THE LEGISLATURE OF 1889.

*Be it enacted by the Legislature of the State of Minnesota:*

SECTION 1. *Poor Persons to be a County Charge.*—Every poor person who is dependent upon the public for maintenance or relief shall be a charge upon the county in which such poor person has a legal residence, as provided by chapter fifteen (15), General Statutes of one thousand eight hundred and seventy-eight (1878), unless otherwise provided by law, and the system of caring for the poor in such counties shall be known as the county system.

**SEC. 2. *When to be a Charge upon Towns, Cities and Villages.*—**

In every county of this state where poor persons who are dependent upon the public for maintenance or relief, in accordance with the provisions of chapter fifteen (15) of the General Statutes of one thousand eight hundred and seventy-eight (1878), have been or shall hereafter be made a charge upon the towns or upon the incorporated cities or villages in which such poor persons have a legal residence, the system of caring for the poor shall be known as the town system. The boards of supervisors of the several towns and the common councils of the several incorporated cities and villages in such counties shall be the superintendents of the poor, in their respective towns, cities and villages, to the exclusion of the county commissioners of such counties.

**SEC. 3. *Relief—How Given.*—**All applications for aid in counties having the town system of poor relief shall be made to the boards of supervisors of the several towns, or to the common councils of the incorporated cities and villages in such counties; and the said boards of supervisors or common councils, themselves or by committees appointed by them, shall grant such relief as they shall deem necessary by paying for the board and care of such poor persons, or providing transportation to their homes, paying rent, furnishing provisions, clothing, fuel and medical attendance, or burying the dead. No cash shall be paid to any poor person under this act, and no bill shall be allowed by any common council or board of supervisors for goods furnished, or services rendered under this act, unless some member of said common council or board of supervisors shall first certify in writing under his hand that the said account is correct and just, that the prices charged therein are reasonable, and that the service charged for was actually rendered, or the goods charged for were necessary for the relief of such poor person, were actually delivered, and were of good quality. Every such bill shall specify the names of the paupers for whom services were rendered or goods furnished, and the amount charged for each pauper.

**SEC. 4. *Officers Not to Have a Pecuniary Interest.*—**No member of any board of supervisors or any city or village council which is charged with the care of the poor under this act shall be either directly or indirectly interested in the furnishing of any supplies for the benefit of poor persons or in the erection or maintenance of any poorhouse, and no such member shall be a physician for the poor or overseer of the county poorhouse. Any person violating the



provisions of this section shall be deemed guilty of a misdemeanor.

SEC. 5. *Duties of Town Supervisors and Common Councils in Counties Having the Town System.*—In counties having the town system of caring for the poor, the boards of supervisors of the several towns and the common councils of the several incorporated cities and villages shall have the following powers and duties:

a. They may appoint some suitable and competent practicing physician to be the physician of the poor, whose duty it shall be, upon direction of any member of such board of supervisors or common council, to attend upon and prescribe for all sick poor persons requiring medical aid who are at the time receiving or entitled to receive public support or relief according to the provisions of this act. Such physician shall hold office during the pleasure of the board or council appointing him, and shall receive such compensation as they shall, from time to time, determine.

b. Whenever application for public relief is made by any person who has not a legal settlement in the town, city or village in which such application is made, but who has a legal settlement in some other county, town, city or village in this state at the time of making such application, the board of supervisors, or the common council, or the chairman or president thereof shall warn such person to depart from said town, city or village; and if such person is unable or refuses to depart within a reasonable time after being so warned, and is likely to become chargeable upon the public for support, the chairman or president aforesaid may issue an order, directed to any constable or marshal in the said town, city or village, and requiring him to convey such poor person to the county, city or town in which he has a legal settlement; and the said constable or marshal shall take such person and convey him to the place designated in said order. The reasonable expense of such removal shall be allowed and paid to such officer out of the poor fund of said town, city or village.

c. When any minor becomes chargeable upon any town, city or village, the board of supervisors or the common council, or any member thereof, shall apply to the board of county commissioners to secure the admission of such minor to the state public school, or they shall bind such minor as an apprentice to some respectable person, a householder of said county, if such person can be found, who will take such minor by written indenture of



the same tenor and effect as required by the chapter of the General Statutes relating to masters and servants, and which shall be binding upon such minor, as therein provided.

SEC. 6. *Residence*.—The general laws of this state as to the residence of poor persons, in order to obtain aid from counties, shall apply to the residence of the poor persons in towns and incorporated cities and villages in counties which shall have adopted the town system of caring for the poor; *provided*, that if any poor person shall have resided within any county continuously for one year, but has not resided within any town, city or village therein continuously for one year, he shall be entitled to relief from that town, or that incorporated city or village, wherein he has resided for the longest period of time within the year preceding his application for relief.

SEC. 7. *Poorhouse*.—In any county having the town system of poor relief, the county commissioners may establish and maintain a county poorhouse with the advice and consent of the state board of corrections and charities. The said poorhouse shall be governed by the provisions of sections six (6), seven (7), eight (8) and nine (9), of chapter fifteen (15) of the General Statutes of one thousand eight hundred and seventy-eight (1878). The cost of establishing and maintaining it shall be paid from the county treasury, but at their July meeting in each year, the board of county commissioners shall fix a weekly rate of board to be charged back upon the several towns, cities and villages in said county and paid into the county treasury from the town, city or village poor fund. The chairman of any board of town supervisors or the president of the common council of any city or village in such county shall have authority to sign commitments to the county poorhouse and to designate some officer of said town, city or village to convey any poor person to the said county poorhouse, the expense of such conveyance to be paid from the town, city or village poor fund. The overseer of the said poorhouse shall receive and care for such poor persons; *provided*, that the said overseer shall not be required to receive any person who may be suffering from any contagious or infectious disease. The said overseer shall have authority to discharge any inmate of the said poorhouse whenever, in his judgment, the said inmate is capable of self-support or whenever he shall ascertain that any inmate has not a legal residence in the county, or whenever the officer by whom such person was committed shall issue an order for his discharge. The overseer

may, if he shall deem it necessary, furnish transportation to any discharged inmate to the place from which he came, at the expense of the county.

SEC. 8. *Care of Non-Resident Paupers.*—In all cases where any town, city or village in any such county shall expend any money in the removal, support, maintenance or burial of any person who has any relative chargeable with his or her support, or who has a legal settlement in any other county, town, city or village within this state which is charged by law with the support of such poor person, the said town, city or village shall be entitled to and may recover from such relative or from such county, town, city or village the same amount and in the same manner as is provided by law for counties to recover under like circumstances.

SEC. 9. *Taxes—How Levied.*—The electors of each town, at their annual town meeting, and the common council of each incorporated city or village in every county having a town system of caring for the poor shall levy or cause to be levied each year a tax upon the real and personal property in said town, city or village respectively of such sum as shall seem necessary for the support and relief of the poor; *provided*, that the said levy shall not be less than one (1) mill upon each dollar of the assessed valuation, unless there shall be in the poor fund of said town, city or village not less than fifty (50) dollars above the amount of orders outstanding at the time when such levy is made. The several town clerks and the several city or village clerks or recorders shall certify the facts to the county auditor.

SEC. 10. *Duties of the County Auditor.*—The county auditor of every county having the town system of caring for the poor, shall, at the time of making the grand tax duplicates of the county, assess and levy upon the taxable property of each town and each incorporated city or village in such county the sums levied for the support and relief of the poor; *provided*, that in case the proper officers of any town, city or village shall neglect to make a levy for the support and relief of the poor and to notify the county auditor, as herein prescribed, then it shall be the duty of the said county auditor to make an assessment upon the said town, city or village of one (1) mill on each dollar of the valuation, for that purpose.

SEC. 11. *Duties of the County Treasurer.*—The county treasurer shall refund to the treasurer of each town and each incorporated city and village in such county the amount of poor funds collected from such towns, cities and villages.

SEC. 12. *County Poor Fund—How Disposed of.*—Any balance of the county poor fund remaining in the county treasury when the town system of caring for the poor goes into effect may be used for maintaining a county poorhouse or transferred into the county revenue fund, as the board of county commissioners shall direct.

SEC. 13. *Steps to be Taken Before Changing System of Caring for the Poor.*—Whenever the county commissioners of any county in this state shall vote to consider the question of changing the system of caring for the poor in said county from the county system to the town system, or from the town system to the county system, or whenever one-fourth ( $\frac{1}{4}$ ) of the legal voters of any county, as shown by the registration at the last preceding general election, shall petition for such a change of system, it shall be the duty of the county commissioners of the said county, or the county auditor, by their direction, to lay the question before the state board of corrections and charities at a regular meeting of that board, stating the principal reasons for or against the proposed change. It shall be the duty of the state board of corrections and charities, thereupon, to present to the said board of county commissioners, in writing, without delay, such advice as they may deem necessary and proper, and no final action shall be taken by any board of county commissioners respecting such change of the system of caring for the poor until the advice of the state board of corrections and charities has been received. If a majority of the members of the said board of county commissioners shall concur in favor of the proposed change, by a yea and nay vote, the question shall be submitted to the legal voters of said county at the next following general election in this state. If the question be whether the town system shall be adopted, the ballots used at said election shall have written or printed, or partly written and partly printed thereon, the words, "For the town system of caring for the poor, Yes—No." If the question be whether the county system shall be adopted, the ballots used at said election shall have written or printed, or partly written and partly printed, the words, "For the county system of caring for the poor, Yes—No," and each elector voting on said question shall erase, mark across or scratch out one of said words, Yes or No, on said ballot, and leave the other on the same when deposited in the ballot box, and no ballots shall be counted except those having only one of said words, Yes or No, thereon. The votes cast upon the question thus submitted



shall be canvassed and returned in the same manner as votes for county officers, and if a majority shall be found to have voted in favor of the said change, the same shall take effect as soon as funds shall become available in the treasuries of the several towns, cities and villages in said county for the support and care of the poor in accordance with this act.

SEC. 14. *Notice of Election to be Given.*—It is hereby made the duty of the county auditor of such county, at least thirty (30) days prior to the said general election, to notify the several town clerks and the recorders or clerks of the several incorporated cities and villages in such county, to insert a paragraph in the notice of the said general election, setting forth that the question of changing the system of caring for the poor, from the county system to the town system, or from the town system to the county system, as the case may be, will be voted upon at the said general election; *provided, however*, that any failure of any town clerk or any city or village recorder to give such notice shall not invalidate such election or prohibit the canvass of the votes cast upon such proposition.

SEC. 15. *Repealing Clause.*—This act shall not be construed to repeal or modify any special laws heretofore passed regulating the care of the poor in Hennepin, Ramsey or Dakota counties unless such counties shall hereafter change their system of caring for the poor in accordance with this act.

All counties in the state which are now under the town system of caring for the poor shall so continue unless the said system shall hereafter be changed in accordance with the provisions of this act, but in all such counties the care of the poor shall be regulated by this act in all cases where the special laws relating to the care of the poor in such counties are inconsistent with this act; and all acts or parts of acts inconsistent with this act are hereby repealed.

SEC. 16. *When to Take Effect.*—This act shall take effect and be in force from and after its passage. Approved April 23, 1889.



## SUPPLEMENT VII.

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### DETAILED ACCOUNT OF THE EXPENSES

Of the Board for the Biennial Period.

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#### TRAVELING EXPENSES OF MEMBERS.

##### *Traveling Expenses of C. H. Berry.*

1886.			
Sept.	15.	St. Paul .....	\$6 75
Dec.		Atlanta, National Prison Congress.....	118 50
	22.	St. Paul.....	5 65
		St. Paul.....	13 40
1887.			
April		St. Paul.....	12 45
		Owatonna.....	6 96
		Stillwater.....	6 25
July	13.	St. Paul.....	9 65
Sept.	5-7.	Stillwater.....	15 50
	14-16.	Stillwater.....	16 00
Oct.	17-18.	Stillwater.....	12 00
1888.			
Feb.		St. Paul .....	31 35
April	3.	St. Paul.....	13 70
			<hr/>
			\$268 16

##### *Traveling Expenses of D. C. Bell.*

1887.			
July	8.	Owatonna.....	\$4 60
Sept.	5-7.	Stillwater.....	3 50
	14-16.	Stillwater.....	2 25
Oct.	17-18.	Stillwater.....	2 50
			<hr/>
			\$12 85

*Traveling Expenses of M. McG. Dana.*

1886.			
Sept.	Owatonna.....	\$4 25	
1887.			
Aug.	Omaha (National Conference Charities).....	34 90	
1888.			
Sept.	Expenses visiting public institutions in Great Britain and Ireland on behalf of the board.....	50 00	
			\$89 15

*Traveling Expenses of G. Vivian.*

1886.			
Sept. 15.	St. Paul .....	\$5 25	
1887.			
Jan. 27.	St. Paul .....	7 50	
	Owatonna.....	16 58	
July 13.	St. Paul .....	12 60	
Aug.	Omaha (National Conference Charities).....	50 50	
Oct.	St. Paul .....	13 85	
1888.			
Feb.	St. Paul .....	18 15	
			\$124 43

*Traveling Expenses of H. R. Wells.*

1886.			
Sept. 15.	St. Paul .....	\$7 25	
Dec. 22.	St. Paul .....	7 25	
1887.			
Jan. 27.	St. Paul .....	10 25	
April	St. Paul .....	7 25	
July 13.	St. Paul .....	7 25	
Aug.	Omaha (National Conference Charities).....	29 10	
Sept. 5-7.	Stillwater.....	8 86	
14-16.	Stillwater.....	8 86	
Oct. 17-18.	Stillwater.....	7 82	
1888.			
Feb.	.....	12 25	
			\$106 14

*Traveling Expenses of the Secretary.*

1886.			
Aug. 14.	Hartford, Conn .....	\$8 40	
16.	Middletown .....	9 00	
17.	Meriden.....	2 50	

Aug.	19.	Lakeville.....	7 53
	21.	Northampton, Mass.....	3 86
Sept.	3.	Faribault.....	90
	7-9.	Minneapolis.....	80
		Livery, St. Paul (police substations).....	2 00
	20.	Rochester.....	3 50
	22.	St. Peter.....	1 75
	25.	Livery, Reform School.....	2 00
Oct.	2.	Faribault.....	2 50
	9.	Livery, Reform School.....	2 00
	12.	Livery, Reform School.....	1 50
	18.	Minneapolis.....	1 40
	23.	Minneapolis, station houses.....	1 85
Dec.	6.	Madison.....	12 30
		Livery, Reform School.....	3 00
1887.			
Jan.	6.	Rochester.....	3 68
	11.	Red Wing.....	3 72
	14.	Stillwater.....	20
Feb.	19.	Faribault.....	3 37
Mar.	4-11.	Detroit, Mich.....	37 50
	11.	Dubuque, Iowa.....	1 85
	14.	Warren, Minn.....	4 00
	15.	Crookston.....	1 50
	17.	Moorhead.....	2 50
	18.	Detroit.....	3 00
	19.	Brainerd.....	2 75
	22.	Aitkin.....	2 25
		N. P. Junction.....	50
	23.	Tower and Two Harbors.....	9 85
	24.	Duluth.....	9 30
	25.	St. Cloud.....	1 25
	25-28.	Fergus Falls.....	3 60
	29-30.	Luverne.....	3 50
	31.	Worthington.....	50
		St. Peter.....	75
April	1.	Owatonna.....	2 70
		Windom.....	4 38
	19.	Livery, Reform School.....	2 50
	26.	Stillwater.....	95
May	4.	Minneapolis.....	3 00
	9.	Faribault.....	3 81
	10.	Stillwater.....	95
	17.	Owatonna.....	7 35
	19.	Stillwater.....	1 45
	21.	St. Peter.....	4 60
	24.	Minneapolis.....	50
		Stillwater.....	95
May	26.	St. Paul.....	75

May	26.	St. Paul (livery to Poor House) .....	3 00
June	7.	Fergus Falls.....	6 00
	24.	Minneapolis.....	25
	27.	Kankakee and Logansport, Ind.....	23 02
July	13.	Anoka.....	2 10
	30.	St. Peter .....	4 16
Aug.	2.	Owatonna.....	4 85
	3.	Rochester.....	4 40
	9.	Owatonna.....	4 06
	19.	St. Paul.....	75
	20.	Minneapolis.....	30
	22.	Minneapolis.....	1 30
	23.	Omaha (National Conference of Charities)...	39 00
	31.	Glenwood, Iowa.....	1 45
Sept.	3.	Stillwater.....	40
	8.	Duluth .....	3 25
	10.	Minneapolis.....	30
	12.	Minneapolis.....	55
	15.	Stillwater.....	76
	16.	Stillwater.....	56
	23.	Minneapolis.....	2 95
	27.	Faribault.....	3 14
	30.	St. Paul (hack).....	50
Oct.	3.	St. Paul (livery, Reform School).....	2 00
	12.	Stillwater.....	44
	14.	St. Paul (livery, Reform School).....	1 75
	17.	Stillwater.....	95
	18.	Stillwater (and hack hire).....	1 70
		St. Paul.....	1 00
		St. Paul (hack hire, governor and members of board).....	5 00
	20.	Rochester.....	7 81
	22.	St. Paul (livery).....	1 50
	25.	St. Paul (hack).....	1 00
	31.	Stillwater.....	95
Nov.	2.	Minneapolis.....	30
	3.	Duluth.....	3 25
	18.	St. Peter.....	3 40
	19.	Stillwater.....	50
	23.	St. Paul.....	2 50
	26.	Minneapolis.....	55
	28.	Minneapolis.....	30
Dec.	9.	Minneapolis.....	30
	13.	St. Paul (livery to Poor House).....	2 50
	14.	Minneapolis.....	80
	17.	Stillwater.....	1 30
	24.	Stillwater.....	56
	29.	Minneapolis.....	30
		Red Wing.....	4 95



1888.

Jan.	6.	Red Wing.....	5 00
	15.	Minneapolis.....	70
Feb.	1.	Faribault.....	4 92
	4.	Sparta, Wisconsin.....	6 05
	6.	Madison.....	7 77
	10.	Grand Forks, Dak.....	10 40
	14.	Crookston.....	11 30
	16.	Minneapolis.....	25
	23.	Minnehaha.....	2 50
	25.	Owatonna.....	4 82
	27.	Minneapolis.....	75
	29.	Minneapolis.....	80
Mar.	3.	Worthington.....	3 25
	6.	Windom.....	2 92
		Mankato.....	6 35
	7.	St. Peter.....	2 82
	8.	Le Sueur Centre.....	3 00
		Henderson.....	2 41
	10.	Dodge Centre.....	4 40
		Rochester.....	4 75
	13.	Minneapolis.....	50
	14.	Waukesha, Wis.....	8 10
	15.	Milwaukee.....	3 75
	17.	Waupun, Wis.....	2 31
	19.	Waupaca, Wis.....	4 33
		Appleton, Wis.....	7 05
	22.	St. Paul (livery, Reform School).....	2 50
	24.	Faribault.....	5 64
	25.	St. Paul (livery, Reform School).....	1 00
	30.	Minneapolis.....	55
	31.	Minneapolis.....	55
		Stillwater.....	2 23
			<hr/>
			\$479 35

POSTAGE AND TELEGRAPHING.

1886.

Aug.	9.	Telegram.....	\$ 40
	16.	Telegram.....	1 00
	19.	Telegram.....	25
Sept.	2.	Telegram.....	50
		Postage stamps.....	10 00
Oct.	14.	Telegram.....	25
Nov.	6.	Telegram.....	25
	19.	Stamps.....	5 00
Dec.	2.	Stamps.....	9 25
	14.	Stamps.....	24 00
		Telegram.....	40
	22.	Stamps.....	50 00

1887.		
Jan.	Telegram.....	40
	Stamps for biennial reports.....	100 00
April 5.	Stamps for biennial reports.....	55 75
Feb. 20.	Two telegrams.....	50
Mar. 15.	Stamps.....	10 00
30.	Telegram.....	25
31.	Telegram.....	90
April 1.	Telegram.....	50
4.	Telegram.....	40
	Newspaper wrappers .....	50
	Telegram.....	10
5.	Stamps.....	50 00
Feb. 1.	Telegram, Winona .....	30
	Telegram.....	20
	Telegram.....	25
	Telegrams, Winona, St. Peter and Preston.....	2 16
June 28.	Telegram .....	25
Aug. 8.	Telegram, Minneapolis.....	20
19.	Telegram.....	25
Sept. 7.	Telegram.....	25
8.	Telegram.....	15
	Stamps.....	5 00
24.	Telegram.....	40
Oct. 24.	Telegram.....	29
	Telegram.....	27
25.	Stamps.....	3 00
29.	Two telegrams.....	52
Nov. 18.	Telegram.....	25
Dec. 3.	Stamps.....	3 00
6.	Telegram.....	25
7.	Telegram.....	25
1888.		
Jan. 5.	Stamps.....	20 00
6.	Telegrams .....	50
18.	Telegram, Winona.....	25
23.	Stamps.....	10 00
24.	Telegram, Preston.....	25
31.	Telegram, Columbus, O.....	82
Feb. 1.	Telegram, Faribault.....	25
March 3.	Postage stamps.....	5 00
3.	Telegram, Worthington.....	40
14.	Madison .....	49
20.	Two telegrams.....	50
April 2.	Postage stamps.....	25 00
		<hr/>
		\$401 30

## MISCELLANEOUS EXPENSES.

1886.		
Sept. 7.	Newspapers .....	\$2 00
	Expressage on plans... ..	25
16.	G. G. Cowie, expenses incurred in behalf of the board.....	11 35
	City Directory.....	4 00
Dec. 24.	G. G. Cowie, expenses incurred in behalf of the board.....	10 70
Sept. 8.	"Tribune" .....	2 70
27.	Photos Rochester Hospital.....	75
Nov. 19.	Expressage on books .....	3 25
29.	Expressage on cuts.....	45
Dec. 22.	Copying report.....	2 75
	Two journals.....	70
	Pioneer Press Co., printing uniform classification of expenses of Minnesota state institutions .....	137 31
	Letter copying press .....	6 40
	Blotter bath.....	3 85
	Letter press sundries.....	4 85
	150 covers for advance sheets for biennial report of the board.....	4 50
	Rubber stamp.....	1 25
7.	Newspapers .....	1 00
	Expressage on books from Boston.....	4 00
31.	Messenger.....	15
	Expressage... ..	45
	Freight on books from Boston.....	5 59
	Typewriter sundries.....	2 55
	Standing desk .....	23 00
1887.		
Jan. 31.	Cyclostyle sundries.....	1 10
Feb. 1.	Picture wire and hooks.....	50
15.	Two hundred copies proceedings of National Conference of Charities, 1886.....	176 00
Mar. 2.	Pamphlets, address on prison reform by Gen. R. Brinkerhoff	20 00
Feb. 7.	Expressage on reports.....	1 35
9.	Daily Globe.....	2 15
21.	Expressage on books .....	50
Mar. 3.	Expressage on books .....	50
April 4.	Daily Globe.....	85
	Expressage on reports .....	1 95
	Expressage on reports .....	15
5.	Subscription, "Lend a Hand" .....	2 00
11.	Cyclostyle repairs.....	1 10
20.	8 copies "International Record" .....	8 00
May 3.	Pioneer Press, for sundries.....	75
7.	Expressage on books .....	50
18.	Messenger.....	25

May	23.	Expressage on reports.....	1 25
June	5.	Delivering reports.....	1 00
July		Miscellaneous expenses.....	4 50
	29.	Pioneer Press Co., ruled statement sheets.....	3 00
Aug.	28.	G. G. Cowie, fare to Omaha, attending National Conference of Charities and Correction.....	23 56
Aug.	1.	Expressage on reports.....	25
	8.	Dispatch.....	45
	11.	Expressage on reports.....	30
Aug.	24.	Proceedings.....	2 80
	31.	Expressage on reports.....	10
Sept.	8.	Dispatch.....	45
	29.	Edison Mimeograph.....	6 00
Oct.	8.	Dispatch.....	45
		Shade for hanging light.....	1 25
		St. Paul City Directory.....	5 00
	20.	Messenger.....	25
	25.	Expressage on books.....	75
Nov.	12.	"Tribune" 1.35, Dispatch 45.....	1 80
Dec.	8.	Dispatch.....	45
		Expressage.....	60
1888.			
Jan.	5.	Oil and can.....	65
	8.	"Tribune" \$1.35, Dispatch 45c.....	1 80
	20.	Expressage on reports.....	25
	30.	Expressage on reports.....	65
		Mimeograph supplies.....	10
Feb.	11.	"Tribune".....	1 50
	13.	Subscription, "Lend a Hand".....	2 00
		Brown, Treacy & Co., for 300 pamphlet cases.....	13 50
		Brown, Treacy & Co., for mimeograph supplies.....	3 35
	17.	Dispatch.....	45
	18.	150 copies proceedings of National Conference of Charities, 1887.....	135 00
		Freight on same from Boston.....	3 35
Feb.	19.	Expressage on reports.....	45
		Expressage on reports.....	15
Mar.	1.	Expressage on reports.....	90
April	2.	Dispatch.....	45
		Twenty copies proceedings of National Prison Association at Atlanta, Ga.....	20 00
	5.	One copy Minnesota State Gazetteer.....	5 00
		Brown, Treacy & Co., miscellaneous supplies.....	8 75
Total miscellaneous expenses.....			\$703 96
1887.			
Expenses Stillwater investigation — paid official stenographer			\$437 32



## SALARIES.

Salary of secretary, 1886-7.....	\$2,499 96	
Salary of secretary, 1887-8.....	2,500 00	
	<hr/>	\$4,999 96
Salary of clerk, 1886-7.....	960 00	
Salary of clerk, 1887-8.....	1,080 00	
	<hr/>	\$2,040 00
Extra clerk hire, 1886-7.....	267 66	
Extra clerk hire, 1887-8.....	360 00	
	<hr/>	\$627 66
Total salaries.....		<hr/> \$7,667 62
Total expenses of the board for two years.....		<hr/> \$10,290 28



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EIGHTEENTH ANNUAL REPORT

OF THE

INSURANCE COMMISSIONER

OF THE

STATE OF MINNESOTA.

---

MADE TO HIS EXCELLENCY, THE GOVERNOR.

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ST. PAUL:  
THE PIONEER PRESS CO.  
1889.





STATE OF MINNESOTA,  
DEPARTMENT OF INSURANCE,  
ST. PAUL, March 1, 1889. }

*To His Excellency W. R. Merriam, Governor of Minnesota,*

SIR: I have the honor to submit herewith the eighteenth annual report of this department.

Very respectfully,

Your obedient servant,

C. P. BAILEY,

*Insurance Commissioner.*



# INSURANCE COMMISSIONER'S REPORT.

## PART I.

### FIRE, MARINE AND CASUALTY INSURANCE.

Since the date of the last annual report—March 1, 1888,—the following companies have complied with the law and been licensed to do business in this state:

#### JOINT STOCK COMPANIES.

NAME.	LOCATION.	CAPITAL.
Burlington.....	Burlington, Iowa.....	\$200,000
British and Foreign Marine .....	Liverpool, England.....	*200,000
Eagle Fire.....	New York City.....	300,000
Empire State.....	Rochester, N. Y.....	200,000
New York Fire.....	New York City.....	200,000
Prudential Fire Association.....	New York City.....	200,000
Sea (Marine).....	Liverpool, England.....	*200,000
Total.....		\$1,500,000

\* Deposited with the insurance commissioner in the State of New York.

#### MUTUAL COMPANIES.

NAME.	LOCATION.
Detroit Manufacturers.....	Detroit, Michigan.
Merchants and Manufacturers.....	Clinton, Iowa.
Merchants and Manufacturers.....	Mansfield, Ohio.
Minnesota Fire Association.....	Minneapolis, Minnesota.
Phoenix Mutual.....	Cincinnati, Ohio.

## COMPANIES WITHDRAWN FROM MINNESOTA DURING 1888.

## JOINT STOCK.

NAME.	LOCATION.	CAPITAL.
Fire Association.....	New York City.....	\$200,000*
Granite State Fire.....	Portsmouth, N. H.....	200,000
Howard.....	New York City.....	400,000
Louisville Underwriters.....	Louisville, Ky.....	300,000
Merchants.....	New York City.....	200,000
Minnesota Farmers.....	Minneapolis, Minn.....	100,000
*Prudential Fire Association.....	New York City.....	200,000
Total.....		\$1,600,000

\* Has since filed its report and been relicensed.

## MUTUAL.

NAME.	LOCATION.
American.....	St. Louis, Missouri.
Lumbermans and Manufacturers.....	Eau Claire, Wisconsin.
Manufacturers.....	St. Louis, Missouri.
Merchants and Manufacturers.....	Mansfield, Ohio.
Mutual Fire Association.....	Eau Claire, Wisconsin.

By comparison with the preceding table it will be seen that the excess of capital of joint stock companies withdrawn over those admitted is \$100,000. Adding to this \$200,000, the capital of the Insurance Company of Dakota, deceased, we have \$300,000, which sum represents the amount of capital the state has less than during the year 1888.

The Minnesota Farmers has not retired from business as indicated above, but has withdrawn as a stock company, and is now operating on the mutual plan under the name of Minnesota Fire Association.

The year 1888 was a prosperous one for all classes of companies so far as this state was concerned. Although there were numerous conflagrations in the larger cities the losses sustained were small, and instead of a positive loss on the year's business as was experienced in 1887, the companies enjoyed a substantial profit.

There was one failure among the fire companies doing business in the state, viz.: The Insurance Company of Dakota, located at Sioux Falls, Dak. This failure was not because of extraordinary losses incurred in this or any other state, but apparently more because the company had nothing to lose. The company was.



first licensed to operate in this state on April 1, 1887, and re-licensed in January, 1888. It underwent three official examinations in 1888 by three different insurance commissioners. The requisite assets, \$200,000, were found in the company's vault, besides a small surplus, but after establishing a reputation for resisting losses and allowing several executions to be "returned unsatisfied," it was found that the once apparently substantial assets had vanished. A receiver was appointed to wind up the affairs of the company and prorate the claims against it, but as he did not find enough to pay the fees which by law he was entitled to as receiver, the claims will probably endure until satisfied by the statute of limitation.

Following is a list of all the fire, marine, mutual and township mutual companies authorized to do business in Minnesota March 1, 1889:

## AMERICAN COMPANIES.

COMPANIES.	LOCATION.
Etna .....	Hartford, Ct.
Agricultural.....	Watertown, N. Y.
Amazon .....	Cincinnati, O.
American Central.....	St. Louis, Mo.
American .....	Boston, Mass.
American .....	Newark, N. J.
American Fire.....	New York City.
American Fire.....	Philadelphia, Pa.
Anglo Nevada.....	San Francisco, Cal.
Boatmans Fire and Marine .....	Pittsburg, Pa.
Boston Marine.....	Boston, Mass.
Boylston.....	Boston, Mass.
Buffalo German.....	Buffalo, N. Y.
Burlington.....	Burlington, Ia.
California.....	San Francisco, Cal.
Citizens.....	New York City.
Citizens.....	Pittsburg, Pa.
Commerce .....	Albany, N. Y.
Commercial.....	San Francisco, Cal.
Commonwealth.....	New York City.
Concordia Fire.....	Milwaukee, Wis.
Connecticut Fire.....	Hartford, Ct.
Continental.....	New York City.
Detroit Fire and Marine.....	Detroit, Mich.
Eagle Fire.....	New York City.
Empire State.....	Rochester, N. Y.
Enterprise Fire and Marine.....	Cincinnati, Ohio.
Equitable Fire and Marine.....	Providence, R. I.
Exchange Fire.....	New York City.
Farmers Fire.....	York, Pa.
Farragut Fire.....	New York City.
Firemens.....	Newark, N. J.
Firemens.....	Dayton, O.
Fire Association.....	New York City.

Fire Association.....	Philadelphia, Pa.
Firemans Fund.....	San Francisco, Cal.
Fire Insurance Company of the County of Philadelphia.....	Philadelphia, Pa.
Franklin.....	Columbus, O.
Franklin Fire.....	Philadelphia, Pa.
German American.....	New York City.
Germania Fire.....	New York City.
German.....	Freeport, Ill.
German Fire.....	Peoria, Ill.
German Fire.....	Pittsburg, Pa.
German Savings.....	Quincy, Ill.
Girard Fire and Marine.....	Philadelphia, Pa.
Glens Falls.....	Glens Falls, N. Y.
Grand Rapids Fire.....	Grand Rapids, Mich.
Greenwich.....	New York City.
Guardian.....	New York City.
Hanover Fire.....	New York City.
Hartford Fire.....	Hartford, Ct.
Hekla Fire.....	Madison, Wis.
Hibernia.....	New Orleans, La.
Home.....	New York City.
Insurance Company of North America.....	Philadelphia, Pa.
Insurance Company of State of Pennsylvania.....	Philadelphia, Pa.
Jersey City.....	Jersey City, N. J.
Liberty.....	New York City.
Long Island.....	Brooklyn, N. Y.
Manufacturers and Builders Fire.....	New York City.
Marine.....	St. Louis, Mo.
Mechanics.....	Philadelphia, Pa.
Merchants.....	Newark, N. J.
Merchants.....	Providence, R. I.
Mercantile.....	Cleveland, O.
Mercantile Fire & Marine.....	Boston, Mass.
Michigan Fire & Marine.....	Detroit, Mich.
Milwaukee Mechanics.....	Milwaukee, Wis.
Minnesota Fire Association.....	Minneapolis, Minn.
Mutual Fire.....	New York City.
National Fire.....	Hartford, Ct.
National Fire.....	New York City.
New York Fire.....	New York City.
Newark Fire.....	Newark, N. J.
New Hampshire Fire.....	Manchester, N. H.
New York Bowery Fire.....	New York City.
Niagara Fire.....	New York City.
North American.....	Boston, Mass.
Northwestern National.....	Milwaukee, Wis.
Ohio Farmers.....	Le Roy, O.
Orient.....	Hartford, Ct.
Packers and Provision Dealers.....	Chicago, Ill.
Pacific Fire.....	New York City.
Park Fire.....	New York City.
Peoples Fire.....	New York City.
Peoples Fire.....	Manchester, N. H.
Peoples.....	Pittsburg, Pa.
Pennsylvania Fire.....	Philadelphia, Pa.
Phenix.....	Brooklyn, N. Y.
Phenix.....	Hartford, Ct.
Providence Washington.....	Providence, R. I.
Reliance.....	Philadelphia, Pa.
Rochester German.....	Rochester, N. Y.
Rockford.....	Rockford, Ill.

Rutgers Fire.....	New York City.
Saint Paul Fire & Marine.....	St. Paul, Minn.
Security.....	New Haven, Ct.
Springfield Fire & Marine.....	Springfield, Mass.
Spring Garden.....	Philadelphia, Pa.
Standard Fire.....	New York City.
State.....	Des Moines, Ia.
Sun.....	San Francisco, Cal.
Sun Mutual.....	New Orleans, La.
Syndicate.....	Minneapolis, Minn.
Teutonia Fire.....	Philadelphia, Pa.
Traders.....	Chicago, Ill.
Union.....	San Francisco, Cal.
Union.....	Philadelphia, Pa.
United Firemens.....	Philadelphia, Pa.
United States Fire.....	New York City.
Westchester Fire.....	New York City.
Western.....	Pittsburg, Pa.
Western Home.....	Sioux City, Ia.
Williamsburgh City Fire.....	New York City.

## FOREIGN COMPANIES—UNITED STATES BRANCHES.

COMPANIES.	LOCATION.
British America.....	Toronto, Can.
British and Foreign Marine.....	Liverpool, Eng.
City of London.....	London, Eng.
Commercial Union.....	London, Eng.
Guardian.....	London, Eng.
Hamburg-Bremen.....	Hamburg, Germany.
Imperial.....	London, Eng.
Lancashire.....	Manchester, Eng.
Lion Fire.....	London, Eng.
Liverpool and London and Globe.....	Liverpool, Eng.
London Assurance.....	London, Eng.
London and Lancashire.....	Liverpool, Eng.
Mannheim.....	Mannheim, Ger.
Marine.....	London, Eng.
Northern.....	London, Eng.
North British and Mercantile.....	London, Eng.
Norwich Union.....	Norwich, Eng.
Phoenix.....	London, Eng.
Scottish Union and National.....	Edinburgh, Scotland
Sea.....	Liverpool, Eng.
Sun Fire Office.....	London, Eng.
Transatlantic Fire.....	Hamburg, Ger.
Union Marine.....	Liverpool, Eng.
Western.....	Toronto, Canada.
Queen.....	Liverpool, Eng.
Royal.....	Liverpool, Eng.

## MUTUAL COMPANIES.

COMPANIES.	LOCATION.
Buckeye.....	Shelby, Ohio.
Central Manufacturers.....	Van Wert, Ohio.
Commonwealth.....	Decatur, Ill.
Detroit Manufacturers.....	Detroit, Mich.
Illinois.....	Alton, Ill.
Manufacturers.....	Indianapolis, Ind.

Manufacturers and Merchants.....	Rockford, Ill.
Merchants and Manufacturers.....	Clinton, Ia.
Millers.....	De Pere, Wis.
Millers and Manufacturers.....	Minneapolis, Minn.
Millers National.....	Chicago, Ill.
Minneapolis.....	Minneapolis, Minn.
Mississippi Valley Manufacturers.....	Rock Island, Ill.
Mutual Fire.....	Chicago, Ill.
Mutual Union Fire.....	Moline, Ill.
Northwestern.....	Rock Island, Ill.
Oshkosh.....	Oshkosh, Wis.
Pacific.....	Alton, Ill.
Phoenix.....	Cincinnati, Ohio.
Protection.....	Hyde Park, Ill.
Reliance.....	Dubuque, Ia.
Western Manufacturers.....	Chicago, Ill.

## TOWNSHIP MUTUALS.

COMPANIES.	LOCATION.
Acoma & Lynn.....	Hutchinson, McLeod Co.
Acton & Genessee.....	Atwater, Kandiyohi Co.
Aretander & Lake Andrew.....	Norway Lake, Kandiyohi Co.
Austin Farmers.....	Dexter, Mower Co.
Agassiz and Odessa.....	Big Stone City, Big Stone Co.
Bath.....	Bath, Freeborn Co.
Beaver Creek.....	Beaver Creek, Rock Co.
Big Stone Co. Farmers.....	Ortonville, Big Stone Co.
Blue Earth Farmers.....	Blue Earth City, Faribault Co.
Collinwood.....	Dassel, Meeker Co.
Deerfield Farmers.....	Medford, Steele Co.
Delafield.....	Delafield, Jackson Co.
Delaware.....	Herman, Grant Co.
Dover and Mamre.....	Willmar, Kandiyohi Co.
Fairmount Farmers.....	Fairmount, Martin Co.
Farmers.....	Hurdal, Fillmore Co.
Farmers.....	Manchester, Freeborn Co.
Farmers.....	Harmony, Fillmore Co.
Flom.....	Wild Rice, Norman Co.
Foster Farmers.....	Wells, Faribault Co.
Hallock Farmers.....	Hallock, Kittson Co.
Hartford.....	Hartford, Todd Co.
Hassan German.....	Rogers, Hennepin Co.
Hay Creek.....	Red Wing, Goodhue Co.
Hawk Creek.....	Sacred Heart, Renville Co.
Holden & Warsaw.....	Warsaw, Goodhue Co.
Holden & Wheeling.....	Nerstrand, Rice Co.
Kelso Farmers.....	New Rome, Sibley Co.
Kenyon.....	Kenyon, Goodhue Co.
Leenthrop Farmers.....	Montevideo, Chippewa Co.
Leon.....	White Rock, Goodhue Co.
Louisville Farmers.....	Marystown, Scott Co.
Madelia Farmers.....	Madelia, Watonwan Co.
Mound Prairie.....	Mound Prairie, Houston Co.
Murray Farmers.....	Currie, Murray Co.
New Auburn.....	New Auburn, Sibley Co.
New Sweden.....	Norseland, Nicollet Co.
North Branch Scandinavian.....	North Branch, Isanti Co.
Norwegian Eldsvold.....	Minneota, Lyon Co.
Oscar Farmers.....	Elizabeth, Otter Tail Co.



Otisco.....	Otisco, Waseca Co.
Park.....	Rollag, Clay Co.
Palmyra Farmers.....	Hector, Benvenue Co.
Parkers Prairie.....	Parkers Prairie, Otter Tail Co.
Plainview.....	Plainview, Wabasha Co.
Pleasant Mound.....	Pleasant Mound, Blue Earth Co.
Preble.....	Newberg, Fillmore Co.
Richfield Farmers.....	Richfield, Hennepin Co.
Rochester German.....	Rochester, Olmsted Co.
Rolling Stone.....	Rolling Stone, Winona Co.
Rose Dell.....	Meadow, Rock Co.
Sharon.....	St. Henry, Le Sueur Co.
Shelby Farmers.....	Amboy, Blue Earth Co.
Spring Garden.....	White Rock, Goodhue Co.
Spring Vale.....	Daibo, Isanti Co.
St. Joseph.....	St. Joseph, Stearns Co.
Stanford German.....	Spencer Brook, Isanti Co.
Stark Farmers.....	Sleepy Eye, Brown Co.
Stockholm.....	Cokato, Wright Co.
Sumter.....	Sumter, McLeod Co.
Sverdrup.....	Underwood, Otter Tail Co.
Sweet.....	Pipestone, Pipestone Co.
Vasa Farmers.....	Vasa, Goodhue Co.
Vernon Edda.....	Vernon, Dodge Co.
Vineland.....	Neby, Polk Co.
Wanamingo, Minneola & Cherry Grove.....	Aspelund, Goodhue Co.
Westbrook.....	Westbrook, Cottonwood Co.
Wheeling.....	Nerstrand, Rice Co.
White Bear Lake.....	Starbuck, Pope Co.
Wilmington.....	Spring Grove, Houston Co.
Young America.....	Hamburg, Carver Co.
Red River Valley.....	Moorhead, Clay Co.

## CASUALTY COMPANIES.

The same casualty companies which operated in the state last year have reported and been licensed to do business during 1889. They number eleven and are as follows:

COMPANIES.	LOCATION.
American Surety.....	New York City.
American Steam Boiler.....	New York City.
Employers Liability.....	London, England.
Fidelity and Casualty.....	New York City.
Guarantee Company of North America.....	Montreal, Canada.
Hartford Steam Boiler.....	Hartford, Ct.
Lloyd's Plate Glass.....	New York City.
Metropolitan Plate Glass.....	New York City.
Pacific Life and Accident.....	San Francisco, Cal.
Standard Life and Accident.....	Detroit, Mich.
Travelers.....	Hartford, Ct.

This makes a list, including the two real estate title insurance companies, of two hundred and forty-nine companies, other than life, in operation in the state, classified as follows:

Joint stock fire companies of other states.....	112
Joint stock fire companies of this state.....	2
Joint stock fire companies of foreign countries.....	26
Mutual fire companies of other states.....	21
Mutual fire companies of this state.....	3
Township mutual fire companies.....	72
Real estate title insurance companies (this state).....	2
Casualty companies (other states).....	11
Total.....	249

## GENERAL COMPARISON.

The following table affords a comparison of the condition and business of all the foregoing companies as reported for the years 1887 and 1888:

	1887.	1888.
Number of Minnesota companies.....	*5	*5
Number of companies from other states.....	†135	†133
Number of companies from foreign countries.....	25	26
Total number of companies authorized to do business in Minnesota.....	165	164
Total cash capital of the American companies other than mutual.....	\$56,868,437.74	\$56,541,224.62
Total assets of American companies.....	157,398,255.24	164,326,602.88
Total American assets of foreign companies.....	42,588,678.68	44,943,915.25
Aggregate assets of all companies.....	199,986,933.09	209,270,518.00
Total liabilities of American companies, capital included..	119,909,321.62	122,760,582.39
Total liabilities of foreign companies.....	22,255,938.59	23,847,992.73
Aggregate liabilities of all companies.....	142,164,258.21	146,608,575.12
Total surplus beyond liabilities, including capital.....	57,822,675.71	62,661,942.96
Total income of all companies.....	102,437,147.94	107,190,436.34
Total expenditures.....	97,505,008.71	98,703,187.27
Excess of income over expenditures.....	4,932,139.23	8,487,249.07
Total fire risks written.....	10,250,063,528.00	10,871,753,518.00
Total fire premiums received.....	106,014,618.52	110,980,740.49
Total marine and inland risks written.....	1,309,390,057.00	1,282,683,125.00
Total premiums received on marine and inland risks.....	8,732,919.46	8,760,372.41
Aggregate fire, marine and inland risks written.....	11,559,453,585.00	12,154,436,643.00
Aggregate fire, marine and inland premiums received.....	114,747,537.98	119,741,112.90
Aggregate fire, marine and inland losses paid.....	57,836,817.60	58,002,578.28
Excess of premiums received over losses paid.....	56,910,720.29	61,738,534.62
Total outstanding risks December 31st.....	12,137,093,340.00	13,258,318,993.00

\*Including three mutual companies.

†Including twenty-four mutual companies.

## THE 1888 BUSINESS IN THIS STATE.

The aggregate fire business in this state of the stock, mutual and township mutual companies, during 1888, was as follows:

Risks written.....	\$239,329,574.00
Premiums received.....	3,304,218.99
Losses incurred.....	1,792,782.08
Ratio of losses incurred to premiums received.....	.54
Average premium rate.....	1.38

The business in detail is shown by the following:

COMPARISON WITH 1887.

RISKS WRITTEN.	1887.	1888.
Fire.....	\$215,017,991.00	\$215,723,781.00
Inland.....	15,232,494.00	23,605,793.00
Totals.....	\$230,250,485.00	\$239,329,574.00
PREMIUMS RECEIVED.		
Fire.....	\$3,138,255.48	\$3,233,950.47
Inland.....	56,438.79	70,268.52
Totals.....	\$3,194,694.27	\$3,304,218.99
Total losses incurred.....	\$2,295,172.17	\$1,792,782.08
Total losses paid.....	2,453,498.79	1,837,711.43
Average fire rate.....	1.46	1.50
Average inland rate.....	.37	.30
Ratio of losses to premiums.....	.72	.54
Increased total of "risks written".....	\$9,972,751.00	\$9,079,089.00
Increased total of "premiums received".....	203,233.00	109,524.72
Total losses in 1888 decreased.....		502,390.09
Excess of fire premiums received over fire losses incurred.....	866,830.08	1,445,201.24

As between "home," "other state" and "foreign" companies the above business was apportioned as follows:

COMPANIES.	Risks Written.	Premiums Received.	Losses Incurred.	Ratio of Losses to Premiums Received.
Home companies .....	\$25,212,334.00	\$306,920.77	\$153,527.44	.50
Other state companies.....	172,465,522.00	2,471,998.69	1,314,927.30	.53
Foreign companies.....	41,651,718.00	525,299.53	324,327.34	.62
Totals.....	\$239,329,574.00	\$3,304,218.99	\$1,792,782.08	.54

As between stock and mutual companies:

COMPANIES	Risks Written.	Premiums Received.	Losses Incurred.	Ratio of Losses to Premiums.
American and foreign joint stock companies.....	\$226,588,080.00	\$3,069,693.69	\$1,751,638.70	.57
American mutual fire companies.....	7,923,272.00	208,157.06	27,463.52	.13
Minnesota township mutual companies.....	4,818,222.00	26,368.24	13,679.86	.52
Totals.....	\$239,329,574.00	\$3,304,218.99	\$1,792,782.08	.54

### THE BUSINESS OF SEVENTEEN YEARS.

YEAR.	Risks Written.	Premiums Received.	Losses Incurred.	Ratio of Losses to Premiums.	Average Premium Rate.
1872.....	\$48,718,176	\$689,738.24	\$306,839.92	.44	1.41
1873.....	56,816,622	846,743.64	374,763.18	.44	1.49
1874.....	60,842,209	940,137.67	247,712.60	.26	1.54
1875.....	62,588,985	987,285.43	462,685.70	.47	1.57
1876.....	64,375,681	972,874.33	367,704.26	.38	1.51
1877.....	67,540,931	888,382.61	501,844.60	.56	1.31
1878.....	72,497,201	901,066.23	885,472.40	.98	1.24
1879.....	80,097,596	1,020,031.01	626,242.21	.61	1.27
1880.....	110,485,526	1,310,749.49	1,391,341.74	1.06	1.18
1881.....	122,070,500	1,596,353.69	914,950.69	.57	1.38
1882.....	148,539,523	1,953,473.55	1,177,477.21	.60	1.32
1883.....	188,063,006	2,457,825.93	1,920,193.38	.78	1.45
1884.....	196,895,004	2,545,580.13	1,854,680.59	.73	1.40
1885.....	203,829,384	2,770,318.19	1,137,721.11	.41	1.43
1886.....	220,277,734	2,991,461.27	1,854,490.26	.61	1.36
1887.....	230,250,485	3,194,694.27	2,295,173.17	.72	1.46
1888.....	239,329,574	3,304,218.99	1,792,782.08	.54	1.38
Totals.....	\$2,173,218,140	\$29,370,144.72	\$18,112,106.15	.62	1.35

It will be seen from the tables in this report that the business of the fire insurance companies operating in this state during the past year has been of a very satisfactory character, as the amount of insurance risks and premiums thereon have been materially increased over the preceding year, while the ratio of losses to premiums received has decreased. The most marked difference is shown in the business of the mutual companies, whose losses during the year 1887 were one hundred and ninety per cent (or nearly twice the amount) of the premiums received, while for the year 1888 their losses were but thirteen (13) per cent of the premiums.



The interests involved in the fire, marine, and life insurance business are of enormous proportions, both in relation to the companies and to the insured, which fact is but little thought of or known outside of insurance circles.

The capital represented by the fire and marine insurance companies which are transacting business in this state—exclusive of foreign companies, which do not report their capital—amounts to fifty-six millions, five hundred and forty-one thousand (56,541,000) dollars, and the risks assumed by said companies in this state during the past year were two hundred and thirty-nine millions, three hundred and twenty-nine thousand (239,329,000) dollars, while the risks assumed by the life insurance companies amount to forty-five millions, seven hundred and twenty-one thousand (45,721,000) dollars, making a total for the two classes of \$285,051,000.

The losses incurred in the state during the past year amount to \$1,792,782, by the fire and marine companies, and \$478,708 for the life insurance companies, making an aggregate of sustained loss of \$2,271,490.

These figures largely exceed those of any other lines of business interests, including state banks and other financial organizations in which the citizens of the state are pecuniarily interested, and show that the interests involved should be carefully guarded by efficient but unoppressive laws, the interests of insured and insurer being mutual.

The growth of the insurance business in this state during the past ten years has only been in keeping with, and is a safe index to, the material progress the state has made during the same period.

I am pleased to publicly notice and commend the character of the annual reports which are submitted to this department by the several companies doing business in this state, as being full, complete, and in as good and business-like shape as could be expected from the same number of national banks.

In regard to the several amendments to our present laws which are being considered by the legislature now in session, I heartily approve of the proposition requiring uniform fire insurance policies to be issued by all companies doing business in the state, and such legislation is generally approved by insurance men, and not objected to by the companies.

The proposition to establish some system of investigation for the purpose of ascertaining the causes of fires is to be commend-

ed, and the law should be made as efficient as possible, that the end in view may be attained. Wherever such laws have been enacted they have been highly commended, and are thought to have been the means of reducing incendiary fires to a considerable extent.

In regard to the enactment generally known as the "Valued policy law," it would be presumptuous on the part of the present commissioner, with his limited experience, to express a decided opinion. It is an important question, and one to be solved by experts, and by the evidence of the results of the working of such laws in states where they have been adopted.

The illegal insurance business which is being transacted in this and other states, seems to be a very difficult matter to suppress under present laws. As they now stand the commissioner is required to prosecute the companies doing such business whenever the fact can be established, and under it my predecessor secured judgment against eighteen companies, at a large expense for the legal proceedings, but nothing has as yet been recovered from such companies for their violation of the laws of this state, and it is doubtful if any recovery can be made, which practically makes the law of no effect. The most efficient plan for the suppression of the illegal insurance business, which is being so persistently prosecuted, seems to be the enactment, by each of the states and territories, of a law forbidding any kind or class of insurance companies organized under their laws from transacting their business in other states or territories where they are not properly licensed to do business, under heavy penalties in fines or forfeiture of their charters, or both. A resolution recommending the passage of such a law by the several states was unanimously approved by the National Insurance Commissioners in convention last year at Madison, Wis. Realizing that such action on the part of the legislatures of the several states and territories would virtually suppress such traffic, the present commissioner prepared and recommended the passage of such a bill, which it is hoped will become a law.

The present commissioner has had two cases against persons acting without license, and for companies unauthorized to do business in the state. An indictment was procured by the attorney of Goodhue county against one such person for soliciting and placing illegal insurance, and he was convicted and fined, but has appealed.

Another case at Duluth was prosecuted by the county attorney before the municipal court, and the party was convicted and fined.

While our laws are very stringent and definite in guarding the solvency of what are commonly known as the regular insurance companies, they are silent as to the assessment companies, and it is to be hoped that the present legislature will enact measures which will make them more stable, define their responsibilities, and secure their members against mismanagement, that they may be made free from the suspicions of insecurity.

Respectfully submitted.

C. P. BAILEY,  
*Insurance Commissioner.*

TABLE NO. I.

*Showing the Fire and Inland Insurance Business Transacted in the State of Minnesota, for the Year 1888, Respecting Risks Written, Premiums Received, Losses Paid, and Losses Incurred.*

COMPANIES.	LOCATION.	FIRE BUSINESS.			Average Pro- portion (Fire)	INLAND BUSINESS.		Total Losses Paid.	LOSSES INCURRED.		Total Losses Incurred.	Ratio Losses Incurred to Premiums Re- ceived.
		Risks Written.	Premiums Received.			Risks Written.	Premiums Received.		Fire.	Inland.		
Atina.....	Hartford, Conn.....	\$3,384,496	\$58,274.04	1.72		\$413,150	\$1,463.34	\$21,371.54	\$21,813.71	\$82.83	\$21,896.54	.37
Agricultural.....	Watertown, N. Y.....	1,002,059	10,722.24	1.07				1,541.99			1,417.40	.13
Amazon.....	Cincinnati, Ohio.....	957,352	15,158.60	1.60				7,345.75			6,535.75	.43
American.....	Boston, Mass.....	557,652	5,368.69	.96				3,277.97			3,527.97	.66
American.....	Newark, N. J.....	768,395	9,179.75	1.19				7,943.11			8,146.95	.88
American Fire.....	New York City.....	1,107,176	16,906.72	1.53				8,025.09			8,025.09	.47
American Fire.....	Philadelphia, Pa.....	2,815,210	48,569.88	1.72				52,643.67			52,643.67	1.09
American Central.....	St. Louis, Mo.....	1,153,892	19,053.99	1.65				14,498.93			14,949.44	.78
Anglo-Nevada.....	San Francisco, Cal.....	936,607	16,324.84	1.74				7,611.23			7,611.23	.47
Boatmans Fire and Marine	Pittsburgh, Pa.....	530,040	8,138.94	1.53				9,939.43			11,691.28	1.44
Boston Marine.....	Boston, Mass.....			.31		353,715	1,090.81	324.04				
Boylston.....	Boston, Mass.....	663,922	14,574.69	2.19				14,236.84			14,298.10	.98
Buffalo German.....	Buffalo, N. Y.....	2,134,467	25,350.31	1.19				14,378.46			15,047.55	.59
Burlington.....	Burlington, Ia.....	291,529	5,001.17	1.71								
California.....	San Francisco, Cal.....	1,057,873	14,808.00	1.40				8,229.73			8,229.73	.56
Citizens.....	New York City.....	951,252	15,564.43	1.65				11,941.12			10,656.81	.68
Citizens.....	Pittsburgh, Pa.....	484,562	8,904.55	1.84				9,572.77			9,572.77	1.08
Commerce.....	Albany, N. Y.....	533,500	7,807.17	1.46				5,712.15			5,912.15	.76
Commercial.....	San Francisco, Cal.....	543,099	11,029.12	2.03				5,686.12			6,286.12	.57
Commonwealth.....	New York City.....	312,925	3,133.79	1.00								
Concordia Fire.....	Milwaukee, Wis.....	1,653,929	27,342.99	1.65				12,146.90			12,038.31	.44
Connecticut Fire.....	Hartford, Conn.....	2,936,803	31,420.01	1.06				31,219.67			28,110.18	.89
Continental.....	New York City.....	13,025,848	141,542.62	1.09				78,457.35			81,825.94	.88
Detroit Fire and Marine.....	Detroit, Mich.....	922,011	10,949.05	1.18				6,779.30			6,329.30	.57
Eagle Fire.....	New York City.....	261,791	2,806.18	1.06								



Empire State.....	276,260	5,446.88	1.97	.....	.....	.....	8,261.08	.....	.....
Enterprise Fire & Marine.....	695,698	12,455.05	2.09	.....	.....	.....	4,351.32	.....	.....
Equitable Fire & Marine.....	626,005	8,879.42	1.42	.....	.....	.....	4,624.00	.....	.....
Exchange Fire.....	1,830,617	30,948.05	1.69	23,594	111.91	.....	7,057.83	.....	.....
Farmers Fire.....	1,962,502	12,740.27	1.32	.....	.....	.....	9,886.40	.....	.....
Farragut Fire.....	1,094,242	14,656.87	1.34	.....	.....	.....	11,097.24	.....	.....
Fremens.....	1,043,950	12,082.54	1.16	.....	.....	.....	6,749.62	.....	.....
Fremens.....	662,330	8,936.35	1.35	.....	.....	.....	2.00	.....	.....
Fire Association.....	938,194	12,735.94	1.36	.....	.....	.....	25,375.62	.....	.....
Fire Association.....	1,377,474	32,002.43	2.32	.....	.....	.....	8,767.06	.....	.....
Franklin.....	250,325	4,560.81	1.82	.....	.....	.....	7,027.38	.....	.....
Franklin Fire.....	1,094,341	16,477.92	1.50	.....	.....	.....	25,129.39	.....	.....
Fremens Fund.....	3,001,648	40,533.20	1.35	.....	.....	.....	39,851.94	.....	.....
Fire Ins. Co. of Co. of Phila.....	595,477	11,905.96	2.00	.....	.....	.....	10,592.80	.....	.....
German.....	3,294,863	52,666.00	1.59	.....	.....	.....	6,139.36	.....	.....
German Fire.....	1,074,314	17,065.82	1.58	.....	.....	.....	21,217.10	.....	.....
German Fire.....	666,507	9,906.72	1.48	.....	.....	.....	37,147.10	.....	.....
Germania Fire.....	2,714,944	35,790.54	1.32	.....	.....	.....	2,242.95	.....	.....
German American.....	4,020,898	67,385.87	1.67	.....	.....	.....	4,636.42	.....	.....
German Savings.....	180,726	2,085.90	1.15	.....	.....	.....	1,882.81	.....	.....
Girard Fire and Marine.....	836,306	12,316.71	1.47	.....	.....	.....	1,724.72	.....	.....
Glens Falls.....	762,481	6,136.35	.80	.....	.....	.....	70.00	.....	.....
Grand Rapids Fire.....	176,086	3,804.99	2.16	.....	.....	.....	2,438.95	.....	.....
Greenwich.....	35,433	341.02	.96	455,700	2,181.93	.....	21,313.62	.....	.....
Guardian Fire.....	310,778	4,699.00	1.51	.....	.....	.....	36,144.99	.....	.....
Hanover Fire.....	1,902,504	31,128.87	1.63	.....	.....	.....	11,294.00	.....	.....
Hartford Fire.....	5,046,894	75,611.21	1.50	.....	.....	.....	5,147.00	.....	.....
Hekla Fire.....	57,750,769	14,189.38	1.89	.....	.....	.....	67,680.39	.....	.....
Hibernia.....	447,793	10,680.00	2.36	.....	.....	.....	42,469.99	.....	.....
Home.....	9,979,967	116,897.92	1.17	.....	.....	.....	5,802.16	.....	.....
Ins. Co. of North America.....	4,028,337	87,764.15	2.18	6,500	19.95	.....	2,560.97	.....	.....
Ins. Co. of the State of Penn.....	813,789	5,564.95	1.17	.....	.....	.....	6,298.00	.....	.....
Jersey City.....	323,945	4,584.44	1.89	.....	.....	.....	5,860.37	.....	.....
Liberty.....	728,140	21,475.03	2.95	.....	.....	.....	4,858.63	.....	.....
Long Island.....	673,042	7,972.34	1.20	.....	.....	.....	1,116.40	.....	.....
M'fact's and Builders Fire.....	908,650	12,212.83	1.34	.....	.....	.....	8,986.17	.....	.....
Marine.....	254,617	4,132.24	1.62	.....	.....	.....	8,568.50	.....	.....
Mechanics.....	778,016	10,843.03	1.40	.....	.....	.....	4,766.50	.....	.....
Mercantile.....	837,014	10,528.84	1.25	.....	.....	.....	.....	.....	.....
Mercantile Fire & Marine.....	658,602	6,960.69	1.06	.....	.....	.....	.....	.....	.....



St. Paul F. & M.....	St. Paul, Minn.....	14, 267, 066	170, 529, 84	1, 201	1, 405, 284	3, 654 08	102, 869, 91	103, 613, 79	597, 16	104, 210, 95	.60
Security.....	New Haven, Conn.....	1, 300, 295	16, 286, 15	1.25	.....	.....	17, 502, 88	.....	.....	17, 622, 43	1.08
Springfield F. & M.....	Springfield, Mass.....	3, 321, 541	59, 825, 36	1.80	.....	.....	27, 180, 80	.....	.....	28, 220, 00	.47
Spring Garden.....	Philadelphia.....	3, 951, 898	13, 968, 63	1.47	.....	.....	8, 084, 65	.....	.....	8, 084, 65	.58
Standard Fire.....	New York City.....	690, 229	6, 774, 20	.98	.....	.....	5, 766, 75	.....	.....	5, 764, 12	.85
State.....	Des Moines, Ia.....	2, 999, 199	47, 987, 19	1.60	.....	.....	18, 320, 24	.....	.....	17, 420, 24	.36
Sun.....	San Francisco, Cal.....	355, 526	8, 331, 08	2.34	.....	.....	6, 580, 00	.....	.....	6, 310, 10	.76
Sun Mutual.....	New Orleans, La.....	848, 794	13, 387, 68	1.68	.....	.....	12, 551, 63	.....	.....	13, 551, 63	1.01
Sun.....	Minneapolis, Minn.....	1, 891, 352	35, 826, 05	1.89	.....	.....	23, 059, 68	.....	.....	23, 992, 12	.64
Syndicate.....	Philadelphia, Pa.....	226, 825	2, 677, 57	1.18	.....	.....	1, 412, 29	.....	.....	1, 412, 29	.53
Teutonia Fire.....	Chicago, Ill.....	1, 028, 337	23, 847, 03	2.27	.....	.....	10, 339, 53	.....	.....	11, 776, 21	.50
Traders.....	Philadelphia, Pa.....	715, 569	9, 024, 24	1.26	11, 404, 963	27, 469 20	8, 742, 81	4, 779, 26	2, 997, 33	7, 776, 59	.53
Union.....	San Francisco, Cal.....	793, 159	16, 168, 83	2.03	.....	.....	14, 996, 52	.....	.....	15, 373, 56	.95
United Firemens.....	Philadelphia, Pa.....	724, 495	12, 356, 12	1.70	.....	.....	8, 861, 57	.....	.....	8, 826, 84	.70
United States Fire.....	New York City.....	935, 350	9, 983, 28	1.07	.....	.....	3, 250, 62	.....	.....	3, 597, 48	.36
Westchester Fire.....	New York City.....	1, 578, 584	21, 614, 43	1.37	.....	.....	12, 130, 71	.....	.....	14, 419, 22	.66
Western.....	Pittsburgh, Pa.....	954, 180	17, 539, 56	1.84	.....	.....	16, 197, 39	.....	.....	16, 094, 92	.92
Western Home.....	St. Paul, Minn.....	687, 169	12, 369, 58	1.80	.....	.....	1, 758, 18	.....	.....	1, 758, 18	.14
Williamsburg City Fire.....	Brooklyn, N. Y.....	1, 390, 024	16, 703, 91	1.20	.....	.....	4, 848, 24	.....	.....	5, 446, 70	.33
Total American.....	.....	\$170, 786, 166	\$2, 508, 100, 22	1.47	\$14, 150, 196	\$36, 293, 94	\$1, 423, 124, 42	\$149, 380, 26	\$3, 968, 17	\$1, 427, 311, 36	.56

TABLE NO. I.—CONTINUED.  
*Foreign Companies—United States Branches.*

COMPANIES.	LOCATION.	FIRE BUSINESS.		Average Premium Rate.	INLAND BUSINESS.		Total Paid.	LOSSES INCURRED.		Total Losses Incurred.	Ratio Losses Incurred to Premium Received.
		Risks Written.	Premiums Received.		Risks Written.	Premiums Received.		Fire.	Inland.		
British America.....	Toronto, Can.....	\$998, 146	\$18, 372.84	1.84			\$17, 695.23			\$14, 621.11	.79
British & Foreign Marine.....	Liverpool, Eng.....										
City of London Fire.....	London, Eng.....	605, 021	10, 714.96	1.77			13, 361.38			11, 951.38	1.11
Commercial Union.....	London, Eng.....	2, 928, 161	41, 856.67	1.43			25, 390.64			27, 163.64	.65
Guardian Fire.....	London, Eng.....	1, 720, 102	17, 543.87	1.02			10, 449.05			10, 785.31	.61
Hamburg Bremen.....	Hamburg, Ger.....	1, 267, 647	22, 555.21	1.78			12, 395.27			11, 200.27	.49
Imperial Fire.....	London, Eng.....	1, 122, 447	20, 277.25	1.80			13, 655.80			13, 623.65	.67
Lancashire.....	Manchester, Eng.....	1, 979, 477	25, 187.87	2.57			24, 220.56			21, 520.56	.85
Lion Fire.....	London, Eng.....	1, 550, 280	16, 656.71	1.07			10, 365.24			10, 308.30	.62
Liverpool & London & Globe	Liverpool, Eng.....	1, 787, 497	33, 341.35	1.86			28, 839.62			27, 749.62	.83
London Assurance Corpor'n	London, Eng.....	1, 151, 184	16, 752.41	1.46			10, 397.73			10, 247.73	.61
London & Lancashire.....	Liverpool, Eng.....	1, 084, 424	18, 021.18	1.06			8, 013.89			8, 533.89	.47
Mannheim.....	Mannheim, Ger.....										
Marine.....	London, Eng.....				1, 378, 486	3, 931.06	1, 203.00			1, 203.00	.07
Northern Assurance Co.....	London, Eng.....	1, 167, 289	21, 033.15	1.80	5, 333, 467	18, 462.73	15, 191.17			14, 618.95	.70
North British & Mercantile.	London & Edinburgh	2, 588, 402	39, 378.00	1.52			31, 908.12			28, 227.62	.71
Norwich Union.....	Norwich, Eng.....	1, 159, 245	20, 968.85	1.81			9, 559.89			8, 559.05	.37
Phoenix Assurance.....	London, Eng.....	1, 508, 705	27, 493.60	1.82			9, 966.81			10, 318.00	.37
Queen's Assurance.....	Liverpool, Eng.....	1, 390, 301	24, 040.83	1.73			23, 705.02			23, 907.95	.99
Royal.....	Liverpool, Eng.....	1, 395, 028	19, 559.14	1.40			4, 497.99			4, 577.47	.23
Scottish Union & National	Edinburgh, Scotland	2, 610, 585	26, 956.13	1.03			11, 624.14			12, 482.64	.46
Sea.....	Liverpool, Eng.....				130, 820	1, 501.77					
Sun Fire Office.....	London, Eng.....	3, 170, 000	35, 922.00	1.13			32, 534.00			33, 298.00	.92
Transatlantic Fire.....	Hamburg, Ger.....	851, 720	10, 640.16	1.25			6, 804.46			7, 304.46	.69
Union Marine.....	Liverpool, Eng.....				671, 710	3, 540.75					
Western.....	Toronto, Can.....	1, 160, 460	24, 053.27	2.07	1, 232, 051	4, 479.93	11, 038.41	\$12, 200.16	\$64.68	\$12, 264.84	.43
Total Foreign.....		\$52,196,121	\$491, 824.95	1.52	\$9, 455, 597	\$33, 974.53	\$332, 808.42	\$12, 200.16	\$64.68	\$324, 927.34	.62



TABLE NO. I.—CONTINUED.

## Mutual Companies.

COMPANIES.	LOCATION.	FIRE BUSINESS.		Average Premium Rate. (Fire).	INLAND BUSINESS.		Total Losses Paid.	LOSSES INCURRED.		Total Losses Incurred.	Ratio Losses Incurred to Premium Rec'd.
		Risks Written.	Premiums Received.		Risks Written.	Premiums Received.		Fire.	Inland.		
Buckeye.....	Shelby, Ohio.....	\$219,920	\$5,247.13	2.38	.....	.....	\$6.00	.....	.....	\$6.00	.....
Central Manufacturers.....	Van Wert, Ohio.....	329,900	5,199.61	1.58	.....	.....	.....	.....	.....	.....	.....
Commonwealth.....	Decatur, Ill.....	146,750	5,505.23	3.78	.....	.....	4,433.76	.....	.....	508.88	.09
Detroit Manufacturers.....	Detroit, Mich.....	47,500	1,454.00	3.06	.....	.....	.....	.....	.....	.....	.....
Illinois.....	Alton, Ill.....	211,860	6,575.85	3.10	.....	.....	2,506.62	.....	.....	.....	.....
Manufacturers.....	Indianapolis, Ind.....	176,425	5,925.83	3.36	.....	.....	3,223.87	.....	.....	1,164.80	.19
Manufacturers & Merchants.....	Rockford, Ill.....	319,000	8,353.05	2.62	.....	.....	.....	.....	.....	.....	.....
Merchants & Manufacturers.....	Clinton, Iowa.....	172,900	2,479.43	1.43	.....	.....	.....	.....	.....	.....	.....
Millers.....	De Pere, Wis.....	259,000	5,946.00	2.66	.....	.....	49.61	.....	.....	49.61	.....
Millers & Manufacturers.....	Minneapolis, Minn.....	304,700	24,366.43	8.00	.....	.....	8,961.73	.....	.....	1,089.90	.04
Millers National.....	Chicago, Ill.....	200,900	3,275.50	1.63	.....	.....	.....	.....	.....	.....	.....
Minneapolis.....	Minneapolis, Minn.....	389,292	30,068.88	7.72	.....	.....	13,204.76	.....	.....	4,329.29	.14
Minnesota Fire Association.....	Minneapolis, Minn.....	2,136,418	16,107.25	.75	.....	.....	8,643.13	.....	.....	6,225.32	.39
Mississippi Valley Man'rs.....	Rock Island, Ill.....	708,150	19,415.72	2.74	.....	.....	3,333.72	.....	.....	3,333.72	.17
Mutual Fire.....	Chicago, Ill.....	844,713	18,089.46	2.14	.....	.....	17,256.41	.....	.....	8,963.21	.50
Mutual Union Fire.....	Moline, Ill.....	206,750	7,284.43	3.52	.....	.....	1,027.91	.....	.....	67.91	.....
Northwestern.....	Rock Island, Ill.....	118,100	4,772.27	4.04	.....	.....	.....	.....	.....	.....	.....
Oskosh.....	Oskosh, Wis.....	473,594	10,100.79	2.13	.....	.....	1,714.32	.....	.....	1,714.32	.17
Pacific.....	Alton, Ill.....	18,000	753.53	4.19	.....	.....	.....	.....	.....	.....	.....
Phoenix.....	Cincinnati, Ohio.....	144,500	4,199.24	2.90	.....	.....	960.00	.....	.....	10.56	.....
Protection.....	Hyde Park, Ill.....	108,900	2,497.47	2.29	.....	.....	.....	.....	.....	.....	.....
Reliance.....	Dubuque, Iowa.....	194,600	8,104.21	.....	.....	.....	3,323.65	.....	.....	.....	.....
Western Manufacturers.....	Chicago, Ill.....	192,400	11,415.75	5.94	.....	.....	.....	.....	.....	.....	.....
Total Mutual.....	.....	\$7,923,272	\$208,157.06	2.63	.....	.....	\$68,644.49	.....	.....	\$27,463.52	.13
Township Companies.....	.....	4,816,222	26,368.24	.55	.....	.....	13,134.10	.....	.....	13,679.86	.52
Grand Total.....	.....	\$215,723,781	\$3,233,950.47	1.50	\$23,606,793	\$70,268.52	\$1,837,711.43	\$161,580.42	\$4,032.85	\$1,792,782.08	.54

TABLE NO. II.—TOWNSHIP

*Table Showing Their Business for 1888 and*

NAMES OF COMPANIES.	COUNTIES.	No. Policies in Force Decem-ber, 1887.	No. Policies Is-sued during 1888.	Am't Insured Thereby.	No. Policies in Force Dec. 31, 1888.	Amount of In-surance in Force Dec. 31, 1888.	Cash on Hand and in Bank Dec. 31, 1887.
Acoma & Lynn.....	McLeod.....	213	124	\$154,255	320	\$439,955	.....
Acton & Genesee.....	Kandiyohi...	590	46	48,800	625	914,145	\$1,022.16
Arctander & Lake Andrew	Kandiyohi...	77	14	15,587	60	56,900	580.39
Austin Farmers.....	Mower.....	248	89	70,360	330	384,416	23.85
Agassiz & Odessa.....	Big Stone.....	.....	49	83,600	49	83,600	.....
Bath.....	Freeborn.....	161	29	34,632	173	182,844	263.24
Beaver Creek.....	Rock.....	63	23	28,960	77	100,600	231.55
Collinwood.....	Meeker.....	.....	72	70,160	72	70,160	.....
Deerfield Farmers.....	Steele.....	433	196	299,125	534	777,314	216.11
Delafield.....	Jackson.....	.....	33	34,036	33	34,036	.....
Delaware Farmers.....	Grant.....	476	176	221,347	622	758,883	211.46
Dover & Mamre.....	Kandiyohi...	168	42	66,776	189	313,982	467.84
Edda.....	Dodge.....	210	43	60,055	215	272,197	64.02
Farmers.....	Freeborn.....	536	244	390,011	674	1,066,089	469.46
Farmers (Hurdal).....	Fillmore.....	44	69	74,435	110	125,766	.83
Farmers (Harmony).....	Fillmore.....	190	125	194,475	180	240,140	159.19
Flom.....	Norman.....	63	131	89,762	194	148,545	142.83
Foster Farmers.....	Faribault.....	67	25	25,485	82	71,855	222.88
Hallock Farmers.....	Kittson.....	36	12	9,195	46	40,669	63.20
Hartford.....	Todd.....	.....	.....	.....	.....	.....	.....
Hassan German.....	Hennepin.....	522	148	163,617	587	742,686	.....
Hay Creek.....	Goodhue.....	314	40	49,512	328	384,682	699.06
Hawk Creek.....	Renville.....	213	49	101,086	249	444,125	163.77
Holden & Warsaw.....	Goodhue.....	141	23	38,150	140	234,715	1,464.87
Holden & Wheeling.....	Rice.....	58	7	13,822	55	105,643	107.02
Kelso Farmers.....	Sibley.....	67	72	80,807	139	163,292	138.02
Kenyon.....	Goodhue.....	84	24	26,985	90	96,750	1,238.16
*Lac qui Parle.....	Lac qui Parle	.....	.....	.....	.....	.....	.....
*Lake Crystal.....	Blue Earth...	.....	.....	.....	.....	.....	.....
*Lake Marshall.....	Lyon.....	.....	.....	.....	.....	.....	.....
Leenthrop Farmers.....	Chippewa.....	216	31	33,775	246	367,740	768.39
Leon.....	Goodhue.....	64	5	6,000	67	88,000	1,331.96
Louisville Farmers.....	Scott.....	59	24	22,695	80	87,870	86.52
Madelia Farmers.....	Watsonwan.....	41	46,111	40	45,861	.....	.....
Mound Prairie Farmers...	Houston.....	127	49	52,205	171	193,238	175.96
Murray Farmers.....	Murray.....	Did	no	business.....	.....	.....	.....
New Auburn.....	Sibley.....	45	51,625	45	51,625	.....	.....
New Sweden.....	Nicollet.....	236	147	173,145	315	349,115	427.17
N'th Branch Scandinavian	Isanti.....	37	43	33,510	77	53,020	42.36
Norwegian Eidsvold.....	Lyon.....	203	56	54,112	230	236,329	1,004.10
Oscar Farmers.....	Otter Tail.....	172	54	63,110	226	264,017	692.43
Otisco Farmers.....	Waseca.....	53	21	42,000	74	148,000	82.00
Park.....	Clay.....	52	9	5,005	61	42,768	293.22
Palmyra Farmers.....	Renville.....	91	33	30,393	118	99,189	25.50
Parkers Prairie.....	Otter Tail.....	83	42	42,784	114	109,469	85.77
Preble.....	Fillmore.....	98	31	21,925	129	93,524	108.80
Pleasant Mound.....	Blue Earth...	122	29	32,688	140	186,395	15.46
*Red River Valley Farmers	Clay.....	.....	.....	.....	.....	.....	.....
Richfield Farmers.....	Hennepin.....	116	26	34,655	140	158,436	16.02
Rochester Farmers.....	Olmsted.....	481	132	151,555	555	709,250	436.12
Rollingstone.....	Winona.....	536	180	317,400	606	970,186	143.59
Rose Dell.....	Rock.....	117	20	23,808	123	134,244	29.83
Sharon.....	Le Sueur.....	39	39	36,415	39	36,415	.....
Shelby Farmers.....	Blue Earth...	136	43	62,872	175	193,257	14.06
Spring Garden.....	Goodhue.....	84	1	7,941	85	109,668	23.41

## MUTUAL COMPANIES.

*Condition at the Beginning of 1889.*

Received for Membership during 1888.	Received from Assessments during 1888.	Received from All Other Sources dur- ing 1888.	Total Receipts in 1888.	Losses Incur- red in 1888.	Losses Paid in 1888.	All Other Ex- penditures in 1888.	Total Expendi- tures in 1888.	Amount on Hand Jan. 1 1889.
\$271.49	\$173.66		\$445.15	\$126.55	\$126.55	\$279.65	\$406.20	\$38.95
241.00	1,240.89	\$66.69	1,548.58	713.50	535.12	396.05	931.17	1,639.57
103.73			103.75		1.52	32.05	33.57	650.55
172.59	321.00		493.59	103.50	103.50	320.48	423.98	93.46
49.00		37.85	86.85			80.50	80.50	6.35
7.00		86.66	93.66	24.00	42.27	22.90	65.17	291.73
28.75	144.80		173.55			94.20	94.20	310.90
177.32			177.32			118.36	118.36	58.72
600.10	660.50	124.30	1,384.90	799.00	799.00	469.31	1,268.31	332.70
112.30			112.30			55.74	55.74	56.56
99.33	955.00		1,054.33	945.00	945.00	251.50	1,196.50	69.29
73.00		409.43	482.43	39.35	39.35	230.48	269.83	680.44
43.00	11.05	193.04	247.09	23.00	23.00	120.00	143.00	168.11
377.00	1,647.65		2,024.65	1,923.00	1,923.00	310.07	2,233.07	261.04
144.26	745.00		889.26	758.00	758.00	106.05	864.05	25.21
287.61		13.70	301.31	506.00	6.00	157.57	163.57	296.93
491.70			491.70	121.91	121.91	185.14	307.05	327.48
109.71			109.71					332.55
31.75	88.02		119.77	131.25	131.25	12.33	143.58	39.39
14.25			14.25			33.00	33.00	
380.97	666.95		1,047.92	130.00	130.00	313.68	443.68	604.24
192.63		30.00	222.63	13.50	13.50	121.85	134.85	736.84
98.05	425.84	43.00	566.84	342.84	342.84	136.31	479.15	251.46
1.00		199.33	200.33	500.00	500.00	57.09	557.09	1,108.11
25.69		132.71	158.40			12.25	12.25	120.46
242.39			242.39			77.67	77.67	302.74
217.26			217.26	92.65	92.65	54.90	147.55	1,307.87
35.89	328.36	27.33	391.58	206.25	227.25	102.51	329.76	830.25
85.33		57.44	143.27	45.00	45.00	37.50	82.50	1,392.73
68.08			68.08			11.85	11.85	142.75
47.90			47.90			43.59	43.59	20.21
334.57			334.57	30.00	30.00	99.44	129.44	381.49
	258.12		258.12			38.03	38.03	220.09
220.50		427.73	648.23	140.00	180.00	363.43	543.43	531.97
35.00	34.29	71.76	141.05			61.47	61.47	121.94
	837.42		837.42	793.00	793.00	87.27	880.27	961.25
78.75	242.87	40.22	361.84	5.40	5.40	129.02	134.42	919.85
42.00		1.00	43.00			37.70	37.70	87.30
13.50	44.70		58.20			5.00	5.00	346.42
58.00	88.10	14.12	160.22	193.00	106.00	71.63	177.63	8.09
66.00	262.75	10.59	339.34			88.64	88.64	336.47
149.44			149.44			53.00	53.00	205.24
109.08	88.03		197.11	40.00	40.00	90.16	130.16	82.41
16.00	118.78		134.78	83.35	83.35	19.35	102.70	48.10
	786.95	354.90	1,141.85	805.60	805.00	308.92	1,108.92	469.05
634.80	929.78		1,564.58	815.35	815.35	192.54	1,007.89	700.28
7.50			7.50	7.50	7.50	9.04	16.54	20.81
109.24			109.24			66.07	66.07	43.17
77.00		125.74	202.74	18.00	18.00	109.00	127.00	89.00
3.75			3.75			5.50	5.50	21.66

TABLE NO.

NAMES OF COMPANIES.	COUNTIES.	No. Policies in Force Decem-ber, 1887.	No. Policies Is-sued during 1888.	Am't Insured Thereby.	No. Policies in Force Decem-ber, 1888.	Amount of In-surance in Force Dec. 31, 1888.	Cash on Hand and in Bank Dec. 31, 1887.
Spring Vale.....	Isanti.....	60	14	7,935	74	44,263	268.00
St. Joseph.....	Stearns.....	45	13	14,460	53	60,660	111.82
Stark Farmers.....	Brown.....	152	57	53,002	209	251,978	33.54
Stockholm.....	Wright.....	304	108	102,195	327	282,312	244.11
Sunter.....	McLead.....	200	87	149,457	270	442,249	65.04
Sverdrup Scandinavian....	Otter Tail....	296	101	95,728	380	400,324	296.49
Sweet Township.....	Pipestone.....	.....	69	70,221	69	70,221	.....
Vasa Farmers.....	Goodhue.....	363	33	38,290	371	608,690	6,379.61
Vineland Farmers.....	Polk.....	80	24	34,714	101	122,914	30.75
Wannamingo, Minneola and Cherry Grove.....	Goodhue.....	373	80	131,964	405	694,300	778.57
Wheeling.....	Rice.....	79	7	16,625	75	169,114	1,011.12
Wilmington.....	Houston.....	247	50	44,155	286	219,990	1,060.36
White Bear Lake.....	Pope.....	210	122	241,002	297	557,391	34.45
Young America.....	Carver.....	231	18	27,710	249	286,121	4,974.10
Totals.....	.....	10,697	3,789	\$4,818,222	13,195	\$17,192,132	\$29,040.54

\* Failed to report.



## II.—CONTINUED.

Received for Membership during 1888.	Received from Assessments during 1888.	Received from All Other Sources during 1888.	Total Receipts in 1888.	Losses Incurred in 1888.	Losses Paid in 1888.	All Other Expenditures in 1888.	Total Expenditures in 1888.	Amount on Hand Jan. 1, 1889.
12.00	121.12	.....	133.12	.....	.....	24.00	24.00	377.12
52.31	.....	6.20	58.51	.....	.....	11.86	11.86	158.47
60.00	.....	64.30	124.30	20.00	20.00	81.00	101.00	56.84
119.00	.....	276.74	395.74	100.00	100.00	188.75	288.75	351.10
145.90	197.46	.....	343.36	190.00	190.00	153.05	343.05	65.35
159.82	471.55	6.81	638.18	751.67	751.67	182.44	934.11	.56
133.49	.....	.....	133.49	.....	.....	129.88	129.88	3.61
33.00	15.60	624.00	672.60	206.25	211.75	600.94	812.69	6,239.52
58.00	89.00	.....	147.00	.....	.....	30.61	30.61	147.14
467.03	.....	20.00	487.03	206.99	340.32	194.44	534.76	730.74
90.24	.....	58.66	148.90	32.95	32.95	23.25	56.20	1,103.82
182.98	113.31	65.66	361.95	.....	.....	107.56	107.56	1,314.75
213.09	1,380.28	.....	1,593.28	1,117.10	1,117.10	262.61	1,379.71	248.02
485.02	.....	292.05	777.07	580.00	580.00	88.70	668.70	5,082.47
\$8,997.45	\$13,488.83	\$3,881.96	\$26,368.24	\$13,679.86	\$13,134.10	\$8,153.38	\$21,287.48	\$34,121.30

TABLE  
*Casualty Business in*

COMPANIES.	LOCATION.	RISKS WRITTEN.			
		Accident.	Fidelity.	Plate Glass.	Steam Boiler.
American Steam Boiler.....	New York City.....	.....	.....	.....	\$524,000
American Surety.....	New York City.....	.....	\$390,600	.....	.....
Employers Liability.....	London, Eng.....	\$93,500	.....	.....	.....
Fidelity and Casualty.....	New York City.....	641,650	250,000	\$282,647	7,000
Guarantee Company of North America.....	Montreal, Can.....	.....	964,800	.....	.....
Hartford Steam Boiler.....	Hartford, Con.....	.....	.....	.....	1,351,175
Lloyd's Plate Glass.....	New York City.....	.....	.....	223,668	.....
Metropolitan Plate Glass...	New York City.....	.....	.....	106,240	.....
Pacific Mutual Life.....	San Francisco, Cal....	483,500	.....	.....	.....
Standard Life and Accident	Detroit, Mich.....	2,846,600	.....	.....	.....
Travelers Life and Accid'nt	Hartford, Con.....	7,855,050	.....	.....	.....
Total .....	.....	\$11,920,300	\$1,605,400	\$612,555	\$1,882,175

## NO. III.

*Minnesota in 1888.*

PREMIUMS RECEIVED.				LOSSES INCURRED.			
Accident.	Fidelity.	Plate Glass.	Steam Boiler.	Accident.	Fidelity.	Plate Glass.	Steam Boiler.
.....	.....	.....	\$5,271.83	.....	.....	.....	.....
.....	\$2,545.90	.....	.....	.....	\$598.81	.....	.....
\$1,921.97	.....	.....	.....	\$81.00	.....	.....	.....
3,408.81	1,882.37	\$7,849.93	62.50	732.02	.....	\$3,670.68	.....
.....	4,577.91	.....	.....	.....	625.77	.....	.....
.....	.....	.....	19,149.80	.....	.....	.....	\$245.30
.....	.....	7,198.16	.....	.....	.....	2,675.47	.....
.....	.....	3,694.92	.....	.....	.....	849.63	.....
1,760.70	.....	.....	.....	194.99	.....	.....	.....
36,511.21	.....	.....	.....	8,620.27	.....	.....	.....
63,289.82	.....	.....	.....	16,103.60	.....	.....	.....
\$106,892.51	\$9,006.18	\$18,743.01	\$24,484.13	\$25,731.88	\$1,224.58	\$7,195.78	\$245.30

TABLE

*Showing the Assets and Liabilities of the Mutual Fire Insurance (oth*

COMPANIES.	LOCATION.	Net Deposit Notes.	Stocks and Bonds.	Cash on Hand and in Bank.
Buckeye.....	Shelby, Ohio.....	\$170,913.00	\$5,000.00	\$18,263.30
Central Manufacturers.....	Van Wert, Ohio.....	130,789.01	5,000.00	18,622.79
Commonwealth.....	Decatur, Ill.....	249,590.65	.....	6,523.96
Detroit Manufacturers.....	Detroit, Mich.....	147,719.88	.....	2,408.31
Illinois.....	Alton, Ill.....	272,988.76	10,825.00	8,413.06
Manufacturers.....	Indianapolis, Ind..	181,135.76	.....	11,282.30
Manufacturers and Merchants..	Rockford, Ill.....	197,640.81	.....	29,191.13
Merchants and Manufacturers..	Clinton, Ia.....	97,354.44	.....	19,809.88
Millers .....	De Pere, Wis.....	300,116.17	5,250.00	10,587.83
Millers and Manufacturers.....	Minneapolis, Minn.	266,704.14	15,200.00	32,245.38
Millers National.....	Chicago, Ill.....	1,123,377.39	260,450.00	28,912.24
Minneapolis.....	Minneapolis, Minn.	201,287.34	300.00	35,733.15
Minnesota Fire Association.....	Minneapolis, Minn.	36,565.15	6,500.00	6,520.22
Mississippi Valley Manuf'rs....	Rock Island, Ill....	328,031.88	17,800.00	21,654.05
Mutual Fire.....	Chicago, Ill.....	450,640.62	2,100.00	21,878.41
Mutual Union (Fire) .....	Moline, Ill.....	158,376.76	300.00	15,176.73
Northwestern .....	Rock Island, Ill....	145,541.14	5,300.00	9,598.50
Oshkosh.....	Oshkosh, Wis .....	123,505.42	.....	13,617.94
Pacific.....	Alton, Ill.....	84,531.52	5,412.50	4,499.30
Phoenix.....	Cincinnati, Ohio ...	267,343.85	10,107.25	2,280.22
Protection.....	Hyde Park, Ill.....	138,168.90	.....	16,618.81
Reliance.....	Dubuque, Ia.....	143,258.31	300.00	5,094.79
Union.....	Cincinnati, Ohio....	.....	.....	1,510.48
Western Manufacturers.....	Chicago, Ill.....	320,575.52	44,270.00	51,035.76
		\$5,536,156.42	\$394,114.75	\$391,478.54



## NO. IV.

*er than Township Mutuals) Operating in Minnesota, March 1, 1889.*

Assessments and Pre- miums in Course of Collection.	All Other Assets.	Total Assets.	Unpaid Losses.	Reinsurance Reserve.	All Other Liabilities.	Total Liabilities.
\$8,146.32	\$3,000.00	\$205,322.62	\$4,750.00	\$16,824.42	\$3,360.90	\$24,935.32
321.54	14,113.69	168,847.03	3,970.35	24,100.33	.....	28,070.68
19,303.68	2,542.50	277,960.79	8,977.78	31,050.13	959.53	40,987.44
1,083.95	12,992.39	164,204.53	3,850.00	16,237.45	208.89	20,296.34
44,002.35	9,250.51	345,479.68	19,180.04	41,946.76	.....	61,126.80
23,825.24	6,706.36	222,949.66	16,461.98	32,096.33	1,998.61	50,556.92
3,395.16	32,798.63	263,025.73	6,809.81	34,787.52	579.73	42,177.06
3,657.06	297.50	121,118.88	1,729.40	17,271.26	718.35	19,719.01
12,863.95	1,042.50	329,860.45	8,942.84	47,333.12	.....	56,275.96
5,064.29	46,657.79	365,871.60	9,083.33	62,367.32	27,241.36	98,692.01
2,156.20	11,443.25	1,426,339.08	8,442.79	102,714.80	44,947.03	156,104.62
17,488.30	4,563.98	259,372.77	12,734.25	51,577.70	.....	64,311.95
7,829.21	97,069.38	154,483.96	2,800.00	15,815.75	100,000.00	118,615.75
19,493.86	34,287.27	421,267.06	6,967.48	80,239.77	.....	87,207.25
16,277.67	101,625.75	592,522.45	40,256.25	94,941.53	.....	135,197.78
8,028.51	12,428.12	194,310.12	6,890.49	40,707.27	1,012.50	48,610.26
.....	18,356.02	178,795.66	.....	15,312.69	.....	15,312.69
13,005.71	12,265.01	162,394.08	6,771.39	58,016.84	2,858.77	67,647.00
10,051.72	.....	104,495.04	1,839.85	10,316.51	.....	12,156.36
27,235.82	438.54	307,405.68	10,400.87	31,352.86	865.54	42,619.27
1,478.94	470.15	156,736.80	3,500.00	14,517.78	388.38	18,406.16
8,882.38	7,504.17	165,039.65	3,518.67	28,631.40	2,363.36	34,513.43
12,195.96	15,034.52	28,740.96	2,675.00	20,543.09	38.25	23,256.34
6,596.75	33,830.38	456,308.41	9,628.36	62,642.71	845.00	73,116.07
\$272,384.57	\$478,718.41	\$7,072,852.69	\$200,180.93	\$951,345.34	\$188,386.20	\$1,339,912.47

*Those Cities and Villages having Organized Fire Departments, and Reporting Same to this Office as Required by Law, are as Follows, and the Figures Opposite Each Represent the Amount of Premiums Received from that Place.*

LOCATION.	Amount.	LOCATION.	Amount.	LOCATION.	Amount.
Albert Lea.....	\$10,334.11	Henderson .....	\$2,762.92	Owatonna.....	\$9,618.44
Alexandria.....	6,832.99	Herman.....	1,910.96	Preston.....	4,357.00
Anoka.....	19,480.88	Jackson.....	1,640.08	Red Wing.....	20,416.20
Appleton.....	5,484.78	Jordan.....	6,152.14	Redwood Falls.....	7,168.40
Arlington.....	9,905.76	Kasson.....	4,023.93	Rochester.....	25,104.91
Austin.....	9,367.97	Lake City.....	10,074.68	Royaton.....	785.71
Benson.....	4,593.59	Lake Crystal.....	2,334.90	Rushford.....	3,099.66
Brainerd.....	18,506.22	Lanesboro.....	2,410.03	Sauk Centre.....	7,387.21
Breckenridge.....	2,833.88	Le Sueur.....	5,247.29	Shakopee.....	4,810.87
Blue Earth City.....	4,339.81	Litchfield.....	7,161.96	Sleepy Eye.....	6,722.85
Canby.....	2,693.04	Little Falls.....	1,943.01	Stillwater.....	63,041.27
Chaska.....	8,682.60	Mapleto.....	31,430.37	St. Charles.....	4,626.80
Cold Springs.....	4,330.80	Mapleto.....	283.96	St. Cloud.....	92,898.88
Crookston.....	4,810.67	Melrose.....	2,874.68	St. Paul.....	738,945.25
Delano.....	14,607.86	Minneapolis.....	1,018,563.39	St. Peter.....	13,448.62
Detroit.....	4,927.66	Montgomery.....	914.14	Tracy.....	4,317.32
Duluth.....	6,104.04	Monticello.....	6,997.80	Wabasha.....	10,290.74
Evansville.....	211,431.70	Monticello.....	1,899.96	Wadena.....	337.13
Farbault.....	2,052.81	Morris.....	16,433.84	Wadena.....	5,571.29
Farmington.....	41,634.21	Morton.....	7,018.65	Waseca.....	9,238.97
Fergus Falls.....	5,443.41	New Prague.....	174.50	Watertown.....	1,152.46
Fisher.....	2,756.79	New Richmond.....	3,108.82	Wells.....	2,790.63
Glencoe.....	2,546.66	New Ulm.....	1,515.25	Winnebago City.....	4,090.44
Glenwood.....	4,155.24	Northfield.....	17,864.29	Willmar.....	4,910.01
Hastings.....	1,241.23	Ortonville.....	14,591.62	Winona.....	73,983.55
	13,329.18		2,696.37	Zumbrota.....	3,408.69

The tables following are the same as are in all reports showing details, which are briefly condensed below.

TABLE B

Shows assets of all the joint stock fire and fire and marine insurance companies doing business in Minnesota on March 1, 1889, and the chief items of which they are composed:

Real estate owned .....	\$18,818,870.65
Loans and mortgages.....	37,487,022.59
Stocks and bonds.....	116,897,793.23
Collateral loans .....	7,393,723.19
Cash on hand and in bank.....	14,640,093.50
Premiums in course of collection.....	12,427,682.41
All other items of assets.....	1,605,332.51
Total.....	<u>\$209,270,518.08</u>

TABLE C. — LIABILITIES.

Paid up capital.....	\$56,541,224.62
Reinsurance reserve.....	78,655,607.99
Unpaid losses.....	9,055,127.39
All other liabilities.....	2,356,615.12
Total.....	<u>\$146,608,575.12</u>

TABLE D. — INCOME, 1888.

From premiums.....	\$98,337,434.22
From interest and dividends.....	7,604,250.85
From rents and all other sources.....	1,248,751.27
Total.....	<u>\$107,190,436.34</u>

TABLE E. — EXPENDITURES, 1888.

For losses.....	\$58,002,578.28
For dividends.....	5,695,737.46
For commissions.....	17,823,422.96
For salaries.....	7,212,589.81
For taxes.....	2,264,538.28
All other items.....	7,704,320.48
Total.....	<u>\$98,703,187.27</u>





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# TABLES.

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TABLE A.

*Showing the Names and Location of all Insurance Companies Authorized to Do Business in Minnesota on the First Day of March, 1889, Together with the Presidents and Secretaries of Said Companies, and the Names and Residences of the Attorneys to Accept Service of Process for Said Companies in Minnesota.*

NAMES OF COMPANIES.	LOCATION.	OFFICERS.			ATTORNEYS TO ACCEPT SERVICE OF PROCESS IN MINNESOTA.	
		President.	Secretary.	Names.	Residence.	
Etna.....	Hartford, Conn.....	Jotham Goodnow.....	A. C. Bayne.....	E. E. Hughson.....	St. Paul.	
Agricultural.....	Watertown, N. Y.....	J. R. Stebbins.....	H. M. Stevens.....	A. R. McGill.....	St. Paul.	
Amazon.....	Cincinnati, Ohio.....	Gazzam Gano.....	J. H. Beattie.....	Chas. Shandrew.....	St. Paul.	
American Central.....	St. Louis, Mo.....	George T. Cram.....	Charles Christensen.....	C. H. Bigelow.....	St. Paul.	
American.....	Newark, N. J.....	F. H. Harris.....	J. H. Worden.....	John S. Prince.....	St. Paul.	
American.....	Boston, Mass.....	Francis Peabody.....	J. W. Field.....	J. J. Watson.....	St. Paul.	
American Fire.....	New York City.....	David Adeo.....	Wm. H. Crolius.....	Thomas Cochran, Jr.....	St. Paul.	
American Fire.....	Philadelphia, Pa.....	T. H. Montgomery.....	Richard Maris.....	Insurance Comm'r.....	St. Paul.	
Anglo-Nevada Assurance Corporation.....	San Francisco, Cal.....	Louis Sloss.....	Z. P. Clark.....	A. R. McGill.....	St. Paul.	
Boatmans F. & M.....	Pittsburgh, Pa.....	O. P. Seafie.....	H. H. Schenck.....	M. S. Dickerson.....	Minneapolis.	
Boston Marine.....	Boston, Mass.....	R. B. Fuller.....	T. H. Lord.....	Hooker, Crittenden & Co.....	Duluth.	
Boylston.....	Boston, Mass.....	J. W. Balch.....	Washington Glover.....	J. J. Watson.....	St. Paul.	
Buffalo German.....	Buffalo, N. Y.....	Philip Becker.....	Oliver J. Eggert.....	E. M. Christian.....	Minneapolis.	
Burlington.....	Burlington, Ia.....	John G. Miller.....	Jacob Alter.....	Chas. Shandrew.....	St. Paul.	
California.....	San Francisco, Cal.....	L. L. Bromwell.....	W. H. C. Fowler.....	Jas. H. Weed.....	St. Paul.	
Citizens.....	Pittsburgh, Pa.....	Wm. G. Johnston.....	J. R. Snively.....	J. C. Stout.....	St. Paul.	
Citizens.....	New York City.....	E. A. Walton.....	F. M. Parker.....	J. H. Weed.....	St. Paul.	
Commerce.....	Albany, N. Y.....	G. A. Van Allen.....	R. V. De Witt.....	Josiah Thompson, Jr.....	Minneapolis.	
Commercial.....	San Francisco, Cal.....	J. H. Wise.....	C. A. Laton.....	S. S. Eaton.....	St. Paul.	
Commonwealth.....	New York City.....	M. M. Belding.....	Charles L. Bartow.....	Franklin Benner.....	Minneapolis.	
Concordia Fire.....	Milwaukee, Wis.....	J. H. Inbush.....	Gustave Wollager.....	J. Q. Haas.....	St. Paul.	
Connecticut Fire.....	Hartford, Conn.....	J. D. Browne.....	Charles R. Burt.....	C. W. Kibbee.....	St. Paul.	
Continental.....	New York City.....	H. H. Lamport.....	Cyrus Peck.....	Chas. Shandrew.....	St. Paul.	
Detroit F. & M.....	Detroit, Mich.....	Wm. A. Butler.....	James J. Clark.....	C. H. Bigelow.....	St. Paul.	
Eagle Fire.....	New York City.....	A. J. Clinton.....	T. J. Gaines.....	E. M. Christian.....	Minneapolis.	

Empire State.....	Rochester, N. Y.....	Henry Nichols.....	James Johnston.....	W. H. Hart.....	St. Paul.....
Enterprise F. & M.....	Cincinnati, Ohio.....	J. W. McCord.....	J. C. Shorlock.....	Chas. Shandrew.....	St. Paul.....
Equitable F. & M.....	Providence, R. I.....	Fred. W. Arnold.....	Jas. S. Tillinghast.....	C. W. Sexton.....	Minneapolis.....
Exchange Fire.....	New York City.....	Richard L. Combes.....	G. W. Monigomery.....	Alex. McDougall.....	Duluth.....
Farmers Fire.....	York, Pa.....	G. E. Hersh.....	David Rieckler.....	F. H. Wagner.....	Minneapolis.....
Farragut Fire.....	New York City.....	J. E. Leffingwell.....	Samuel Darbee.....	W. N. Keith.....	Minneapolis.....
Fire Association.....	New York City.....	P. B. Armstrong.....	J. C. Hattie.....	A. R. McGill.....	St. Paul.....
Fire Association.....	Philadelphia, Pa.....	J. Lightford.....	W. L. Winslip.....	E. B. Ames.....	Minneapolis.....
Firemen's Fund.....	San Francisco, Cal.....	David J. Staples.....	Wm. J. Dutton.....	C. W. Sexton.....	Minneapolis.....
Firemen's.....	Newark, N. J.....	J. H. Kase.....	Charles Colyer.....	C. E. D. Olmsted.....	St. Paul.....
Firemen's.....	Dayton, Ohio.....	S. Craighead.....	Charles Richardson.....	E. B. Ames.....	Minneapolis.....
Fire Ins. Co. of the County of Philadelphia.....	Philadelphia, Pa.....	James N. Stone.....	C. R. Peck.....	St. Paul.....	St. Paul.....
Franklin.....	Columbus, Ohio.....	P. W. Huntington.....	H. O. Rogers, Jr.....	J. C. Stout.....	St. Paul.....
Franklin Fire.....	Philadelphia, Pa.....	J. W. McAllister.....	Ezra T. Cresson.....	Jno. Rogers.....	St. Paul.....
German American.....	New York City.....	E. Oldermann.....	James A. Silvey.....	C. H. Weed.....	St. Paul.....
Germania Fire.....	New York City.....	Rudolph Garrigue.....	Hugo Schumann.....	J. H. Weed.....	St. Paul.....
German.....	Freeport, Ill.....	M. Hettinger.....	F. Gund.....	A. R. McGill.....	St. Paul.....
German Fire.....	Peoria, Ill.....	B. Cremer.....	T. J. Muller.....	A. N. Nelson.....	St. Paul.....
German Fire.....	Pittsburgh, Pa.....	C. Barchfeld.....	F. L. Gross.....	M. D. Miller.....	St. Paul.....
German Insurance and Savings Institution.....	Quincy, Ill.....	H. F. J. Ricker.....	A. H. Heine.....	M. D. Miller.....	St. Paul.....
Girard F. & M.....	Philadelphia, Pa.....	A. S. Gillet.....	Edwin F. Merrill.....	C. H. Bigelow.....	St. Paul.....
Glens Falls.....	Glens Falls, N. Y.....	R. M. Little.....	J. L. Cunningham.....	C. H. Bigelow.....	St. Paul.....
Grand Rapids Fire.....	Grand Rapids, Mich.....	Julius Houseman.....	S. F. Aspinwall.....	O. L. Taylor.....	St. Paul.....
Greenwich.....	New York City.....	S. C. Harriot.....	Mason A. Stone.....	A. R. McGill.....	St. Paul.....
Guardian Fire.....	New York City.....	Walter K. Paye.....	James C. Stevens.....	N. R. Thompson.....	Minneapolis.....
Hanover Fire.....	New York City.....	B. S. Walcott.....	I. R. Lane.....	J. H. Weed.....	St. Paul.....
Hartford Fire.....	Hartford, Conn.....	G. L. Chase.....	P. C. Royce.....	Hughson & Hemenway.....	St. Paul.....
Herkla Fire.....	Madison, Wis.....	Halle Steensland.....	Wm. R. Freeman.....	O. H. Sweng.....	St. Paul.....
Hibernia.....	New Orleans, La.....	J. T. Gibbons.....	J. J. Fitzpatrick.....	P. E. Lockwood.....	Minneapolis.....
Home.....	New York City.....	Daniel A. Heald.....	W. L. Bigelow.....	E. E. Hughson.....	St. Paul.....
Insurance Company of North America.....	Philadelphia.....	Charles Platt.....	G. E. Fryer.....	S. S. Eaton.....	St. Paul.....
Insurance Co. of the State of Pennsylvania.....	Philadelphia.....	G. G. Crowell.....	A. B. Earle.....	J. W. McClung.....	St. Paul.....
Jersey City.....	Jersey City, N. J.....	Nathaniel Foote.....	C. F. Patterson.....	A. R. McGill.....	St. Paul.....
Liberty.....	New York City.....	G. A. Morrison.....	S. R. Weed.....	C. W. Bunn.....	St. Paul.....
Long Island.....	Brooklyn, N. Y.....	Jonathan Ogden.....	Henry Blackford.....	M. D. Miller.....	St. Paul.....
Manufacturers and Builders Fire.....	New York City.....	E. V. Loew.....	J. Jay Nestell.....	M. D. Miller.....	St. Paul.....
Marine.....	St. Louis, Mo.....	J. A. Bartlett.....	S. G. Kennedy.....	J. Thompson, Jr.....	Minneapolis.....
Mechanics Fire.....	Philadelphia, Pa.....	James Wood.....	S. J. Martin.....	C. W. Sexton.....	Minneapolis.....
Mechanics.....	Newark, N. J.....	Henry Powles.....	J. R. Muliken.....	A. R. McGill.....	St. Paul.....
Merchants.....	Providence, R. I.....	Wm. T. Barton.....	Wm. P. Goodwin.....	C. W. Sexton.....	Minneapolis.....

TABLE A.—CONTINUED.

NAME OF COMPANY.	LOCATION.	OFFICERS.			ATTORNEYS TO ACCEPT SERVICE OF PRO- CESS IN MINNESOTA.	
		President.	Secretary.		Names.	Residence.
Mercantile.....	Cleveland, Ohio.....	Wm. I. Gordon.....	Geo. A. Tisdale.....		John Rogers, Jr.....	St. Paul.
Mercantile F. & M.....	Boston, Mass.....	G. R. Rogers.....	James Simpson.....		J. J. Watson.....	St. Paul.
Michigan F. & M.....	Detroit, Mich.....	D. Whitney, Jr.....	E. Harbeck.....		Fred. Payne.....	Minneapolis.
Milwaukee Mechanics.....	Milwaukee, Wis.....	Christian Preusser.....	A. J. Cramer.....		E. Eichhorn.....	Minneapolis.
Mutual Fire.....	New York City.....	P. B. Armstrong.....	P. C. Hattie.....		Blake & Co.....	Minneapolis.
National Fire.....	Hartford, Conn.....	James Nichols.....	E. G. Richards.....		H. L. Moss.....	St. Paul.
National Fire.....	New York City.....	Henry F. Drowne.....	J. H. Kattenstroth.....		S. S. Eaton.....	St. Paul.
Newark Fire.....	Newark, N. J.....	J. J. Henry.....	O. O. Brewer.....		A. R. McGill.....	St. Paul.
New Hampshire Fire.....	Manchester, N. H.....	James A. Weston.....	John C. French.....		J. G. McFarlane.....	Minneapolis.
New York Bowery Fire.....	New York City.....	J. A. Delany.....	C. A. Blauvelt.....		A. R. McGill.....	St. Paul.
New York Fire.....	New York City.....	Daniel Underhill.....	Augustus Colson.....		O. M. Laraway.....	Minneapolis.
Niagara Fire.....	New York City.....	Peter Notman.....	West Pollock.....		Thomas Cochran, Jr.....	St. Paul.
North American.....	Boston, Mass.....	Silas Pierce.....	C. E. Macullar.....		J. J. Watson.....	St. Paul.
Northwestern National.....	Milwaukee, Wis.....	Alfred James.....	J. P. McGregor.....		I. H. Weed.....	St. Paul.
Ohio Farmers.....	Le Roy, Ohio.....	J. C. Johnson.....	A. H. Hauley.....		Chas. Shandrew.....	St. Paul.
Orient.....	Hartford, Conn.....	Charles B. Whiting.....	J. M. Taintor.....		J. H. Weed.....	St. Paul.
Pacific Fire.....	New York City.....	F. T. Stinson.....	Geo. Jeremiah.....		S. S. Eaton.....	St. Paul.
Packers & Provision Dealers.....	Chicago, Ill.....	W. E. Rollo.....	J. B. Tower.....		E. B. Ames.....	Minneapolis.
Park Fire.....	New York City.....	Wm. Taftay.....	Wm. Valentine.....		M. D. Miller.....	St. Paul.
Peoples Fire.....	New York City.....	F. V. Price.....	A. C. Milne.....		A. N. Nelson.....	St. Paul.
Peoples Fire.....	Manchester, N. H.....	J. C. Moore.....	S. B. Stearns.....		E. S. Corser.....	Minneapolis.
Peoples.....	Pittsburgh, Pa.....	James Herdman.....	W. F. Gardner.....		J. S. Prince.....	St. Paul.
Pennsylvania Fire.....	Philadelphia, Pa.....	John Devereux.....	J. L. Thomson.....		E. R. Pierce.....	Minneapolis.
Phoenix.....	Brooklyn, N. Y.....	G. P. Sheldon.....	Philander Shaw.....		J. H. Weed.....	St. Paul.
Phoenix.....	Hartford, Conn.....	H. Kellogg.....	G. H. Burdick.....		J. H. Weed.....	St. Paul.
Providence-Washington.....	Providence, R. I.....	J. H. De Wolf.....	J. R. Branch.....		J. H. Davis.....	Minneapolis.
Reliance.....	Philadelphia, Pa.....	Thomas C. Hill.....	William Chubb.....		Josiah Thompson, Jr.....	Minneapolis.
Rochester-German.....	Rochester, N. Y.....	Frederick Cook.....	H. F. Atwood.....		A. V. Teeple.....	St. Paul.
Rockford.....	Rockford, Ill.....	John Lake.....	C. E. Sheldon.....		Chas. Shandrew.....	St. Paul.
Rutgers Fire.....	New York City.....	E. B. Fellows.....	J. F. Hanford.....		Wm. Peet, Jr.....	St. Paul.



St. Paul F. & M. Security	St. Paul	C. H. Bigelow	C. B. Gilbert	Insurance Commissioner	St. Paul
Springfield F. & M.	New Haven, Conn.	Charles B. Leete	Herbert Mason	H. P. Hubbell	St. Paul
Spring Garden	Springfield, Mass.	J. N. Dunham	S. J. Hall	R. M. Newport	Winona
State	Philadelphia, Pa.	John Valentine	J. E. Peterson	Chas. Shandrew	St. Paul
	Des Moines, Iowa	O. B. Ayers	J. C. Cummings		St. Paul
Standard Fire	New York City	W. M. St. John	R. H. Myers	A. R. McGill	St. Paul
Sun	San Francisco, Cal.	C. L. Taylor	Ed. E. Potter	Henry Payne	St. Paul
Sun Mutual	New Orleans, La.	J. I. Day	Horace Carpenter	W. G. Strickland	St. Paul
Syndicate Fire	Minneapolis, Minn.	E. B. Ames	Jacob Stone	Wm. J. Cremer	St. Paul
Tentonia Fire	Philadelphia, Pa.	Eugene Fraussen	Thos. Chamberlain		St. Paul
Traders	Chicago, Ill.	E. Buckingham	R. J. Smith	C. H. Bigelow	St. Paul
Union	San Francisco, Cal.	N. T. James	James D. Bailey	C. W. Sexton	Minneapolis
Union	Philadelphia, Pa.	C. S. Hollinshead	J. M. Cowell	C. W. Sexton	Minneapolis
United Firemens	Philadelphia, Pa.	Jos. L. Caven	Robert B. Beath	John P. Rea	Minneapolis
United States Fire	New York City	W. W. Underhill	Geo. E. Cock	E. M. Christian	Minneapolis
Westchester Fire	New York City	Geo. R. Crawford	John Q. Underhill	C. H. Bigelow	St. Paul
Western	Pittsburgh, Pa.	Alexander Minnick	Wm. P. Herbert	G. W. Lamson	St. Paul
Western Home	Sioux City, Ia.	W. L. Joy	G. W. Kingsnorth	Chas. Shandrew	St. Paul
Williamsburg City Fire	New York City	Edmund Driggs	N. W. Messrole	G. W. Lamson	St. Paul

TABLE A. — CONTINUED.  
*Foreign Companies — United States Branches.*

NAMES OF COMPANIES.	LOCATION.	MANAGERS.		ATTORNEYS TO ACCEPT SERVICE OF PROCESS IN MINNESOTA.	
				Names.	Residence.
British America.....	Toronto, Can.....	John Morrison, Governor.....	John Rogers, Jr.....	John Rogers, Jr.....	St. Paul.
British and Foreign Marine.....	Liverpool, Eng.....	L. Allen Wight, U. S. Manager, New York City.....	Insurance Commis'ner.....	Insurance Commis'ner.....	St. Paul.
City of London Fire.....	London, Eng.....	J. C. Paige, U. S. Manager, Boston, Mass.....	C. H. Bigelow.....	C. H. Bigelow.....	St. Paul.
Commercial Union.....	London, Eng.....	Alfred Pell and Chas. Sewall, U. S. Managers, New York City.....	C. B. Gilbert.....	C. B. Gilbert.....	St. Paul.
Guardian.....	London, Eng.....	Henry E. Bowers, U. S. Manager, New York City.....	W. A. Barnes.....	W. A. Barnes.....	Minneapolis.
Hamburg Bremen.....	Hamburg, Ger.....	T. O. Affeld, U. S. Manager, New York City.....	J. H. Weed.....	J. H. Weed.....	St. Paul.
Imperial Fire.....	London, Eng.....	J. C. Paige, U. S. Manager, Boston, Mass.....	S. S. Eaton.....	S. S. Eaton.....	St. Paul.
Lancashire.....	Manchester, Eng.....	E. Litchfield, U. S. Manager, New York City.....	C. H. Bigelow.....	C. H. Bigelow.....	St. Paul.
Lion Fire.....	London, Eng.....	M. Bement, Jr., U. S. Manager, Hartford, Conn.....	J. J. Watson.....	J. J. Watson.....	St. Paul.
Liverpool and London and Globe.....	Liverpool, Eng.....	H. W. Eaton, U. S. Manager, New York City.....	J. S. Prince.....	J. S. Prince.....	St. Paul.
London Assurance.....	London, Eng.....	C. L. Case, Western Manager, Chicago, Ill.....	Isaac McNair.....	Isaac McNair.....	Minneapolis.
London and Lancashire.....	Liverpool, Eng.....	John S. Belden, Northwestern Manager, Chicago, Ill.....	S. S. Eaton.....	S. S. Eaton.....	St. Paul.
Maunheim.....	Mannheim, Ger.....	Hugo McDonald, U. S. Manager, New York City.....	A. F. Gale.....	A. F. Gale.....	Minneapolis.
Marine.....	London, Eng.....	C. A. Macdonald, U. S. Manager, Chicago, Ill.....	Chas. Shandrew.....	Chas. Shandrew.....	St. Paul.
Northern.....	London, Eng.....	W. D. Crooke, Northwestern Manager, Chicago, Ill.....	Jacob Stone.....	Jacob Stone.....	Minneapolis.
North British and Mercantile.....	London, Eng.....	J. P. Blagden, U. S. Manager, New York City.....	S. C. Gale.....	S. C. Gale.....	Minneapolis.
Norwich Union.....	Norwich, Eng.....	I. M. Hare, U. S. Manager, New York City.....	J. C. Shandrew.....	J. C. Shandrew.....	St. Paul.
Phoenix.....	London, Eng.....	A. D. Irving, U. S. Mgr., E. B. Clark, Ass't Mgr., New York City.....	C. H. Bigelow.....	C. H. Bigelow.....	St. Paul.
Queen.....	Liverpool, Eng.....	J. A. McDonald, U. S. Manager, New York City.....	A. R. McGill.....	A. R. McGill.....	St. Paul.
Royal.....	Liverpool, Eng.....	C. H. Case, Northwestern Manager, Chicago, Ill.....	S. S. Eaton.....	S. S. Eaton.....	St. Paul.
Scottish Union and National.....	Edinburgh, Scot.....	M. Benent, Jr., U. S. Manager, Hartford, Conn.....	J. J. Watson.....	J. J. Watson.....	St. Paul.
Sea.....	Liverpool, Eng.....	C. A. Macdonald, U. S. Manager, Chicago, Ill.....	A. McDougall.....	A. McDougall.....	Duluth.
Sun Fire Office.....	London, Eng.....	J. J. Guile, U. S. Manager, Watertown, N. Y.....	R. F. Marvin.....	R. F. Marvin.....	St. Paul.
Transatlantic Fire.....	Hamburg, Ger.....	E. Harbers, U. S. Manager, New York City.....	M. D. Miller.....	M. D. Miller.....	St. Paul.
Union Marine.....	Liverpool, Eng.....	Jones & Whitlock, U. S. Managers, New York City.....	Jacob Stone.....	Jacob Stone.....	Minneapolis.
Western.....	Toronto, Can.....	J. J. Kenney, Managing Director.....	J. H. Weed.....	J. H. Weed.....	St. Paul.

TABLE B.

Showing the Several Items Comprising the Assets at the Close of 1888, of Fire and Marine Insurance Companies Operating in Minnesota for the Year 1889.

COMPANIES.	Value of Real Estate Owned.	Loans Secured by Mortgages on Real Estate.	Market Value of Bonds and Stocks Owned.	Loans Secured by Bonds and Stocks as Collateral.	Cash on Hand and in Bank.	Premiums in Course of Collection.	All Other Assets.	Total Admitted Assets.	Increase or Decrease as Compared with 1887. (— Shows Decrease.)
<i>Etna</i> .....	\$365,000.00	\$44,085.29	\$8,011,751.50	\$7,770.00	\$978,670.57	\$872,910.42	\$563.85	\$9,780,751.63	\$252,362.66
<i>Agricultural</i> .....	173,661.10	1,165,439.34	362,090.00	51,450.00	153,322.43	50,814.44	3,393.30	1,990,200.61	57,626.03
<i>Amazon</i> .....	90,150.00	29,399.36	189,756.50	175,212.50	13,350.00	35,500.37	2,148.90	553,517.65	—25,618.44
<i>American, Mass.</i> .....	.....	.....	484,439.62	49,306.25	53,739.73	11,414.66	25,375.40	624,275.66	37,807.34
<i>American, N. J.</i> .....	367,022.96	1,119,802.90	381,000.00	17,200.00	49,820.15	22,962.81	7,244.01	1,965,052.83	53,165.82
<i>American Fire, N. Y.</i> .....	.....	55,915.53	1,005,000.00	153,250.00	30,224.74	62,840.14	1,283.91	1,308,514.32	20,802.27
<i>American Fire, Pa.</i> .....	230,100.00	993,605.83	1,024,157.78	97,000.00	111,784.74	34,337.48	9,380.38	2,507,916.21	98,960.10
<i>American Central</i> .....	500,000.00	.....	540,000.00	110,000.00	78,769.69	78,871.22	.....	1,307,640.91	78,143.14
<i>Anglo-Nevada</i> .....	.....	1,036,669.68	972,030.55	375,787.50	81,860.89	151,190.29	9,050.79	2,626,589.70	128,756.52
<i>Boatmans F. &amp; M.</i> .....	71,500.23	53,027.41	230,254.00	.....	18,767.38	18,323.08	1,027.60	392,899.70	—13,248.35
<i>Boston Marine</i> .....	28,740.78	534,860.76	830,518.63	73,560.00	308,063.05	650,992.88	2,322.45	2,429,058.55	46,562.56
<i>Boylston</i> .....	184,770.79	184,770.79	518,732.00	103,000.00	96,582.09	23,606.00	14,792.69	941,483.57	31,605.47
<i>Buffalo German</i> .....	275,000.00	372,162.08	407,476.38	97,500.00	124,213.58	52,235.12	1,294.16	1,329,884.32	62,156.00
<i>Burlington</i> .....	103,694.48	44,860.00	44,860.00	12,800.00	102,308.89	23,927.51	1,421.52	307,132.40	.....
<i>California</i> .....	104,000.00	21,906.32	663,415.00	.....	344,080.65	132,082.45	47,801.62	1,313,286.04	141,370.61
<i>Citizens, N. Y.</i> .....	119,500.00	85,217.38	659,900.00	109,900.00	50,455.11	94,279.10	6,946.20	1,126,197.79	18,957.77
<i>Citizens, Pa.</i> .....	108,000.00	213,045.14	253,637.50	47,239.00	46,799.37	23,333.28	1,062.81	693,107.10	25,564.45
<i>Commerce</i> .....	58,000.00	13,900.00	362,925.00	12,800.00	17,611.00	4,221.61	818.00	470,275.61	25,901.24
<i>Commercial</i> .....	5,030.80	176,291.17	144,791.25	10,000.00	25,029.82	84,415.02	4,531.64	450,086.70	15,891.95
<i>Commonwealth</i> .....	.....	71,737.92	494,220.50	.....	123,998.86	21,971.48	1,545.00	713,533.76	87,367.95
<i>Concordia Fire</i> .....	344,400.87	.....	146,375.00	.....	44,953.85	43,503.16	2,152.77	581,385.65	33,373.92
<i>Connecticut Fire</i> .....	87,550.00	624,650.00	1,256,737.00	19,300.00	171,171.27	110,912.74	.....	2,260,917.01	97,009.69
<i>Continental</i> .....	690,500.00	170,909.25	3,437,487.00	140,700.00	278,172.61	146,450.00	164,175.79	5,028,344.69	152,721.66
<i>Detroit F. &amp; M.</i> .....	69,757.57	734,479.54	49,400.00	2,800.00	42,525.46	19,226.31	4,110.36	922,299.24	59,604.37
<i>Eagle Fire</i> .....	449,000.00	20,098.25	581,098.50	400.00	10,614.38	18,890.48	11,320.96	1,091,422.57	.....

TABLE B.—CONTINUED.

COMPANIES.	Value of Real Estate Owned.	Loans Secured by Mortgages on Real Estate.	Market Value of Bonds and Stocks Owned.	Loans Secured by Bonds and Stocks as Collateral.	Cash on Hand and in Bank.	Premiums in Course of Collection.	All Other Assets.	Total Admitted Assets.	Increase or Decrease as Compared with 1887. (—Shows decrease.)
Empire State.....		\$114,434.55			\$124,945.26	\$9,143.78		\$248,523.59	
Enterprise F. & M.....	\$80,000.00	14,034.75	\$103,652.50	\$28,455.00	8,541.06	9,770.74	\$1,211.43	245,675.48	\$3,149.02
Equitable F. & M.....	129,900.00	99,856.00	289,800.00	900.00	19,562.08	27,052.77	1,572.50	588,642.85	8,561.37
Exchange Fire.....		69,434.69	303,450.00	100,975.00	33,474.07	57,535.63	15,279.56	480,148.95	—36,990.80
Farmers Fire.....	36,500.00	202,503.33	218,672.50	1,300.00	47,265.15	20,658.08	66.53	526,965.59	22,082.83
Farragut Fire.....	6,000.00	22,322.50	313,249.42	3,900.00	29,382.67	21,549.08	4,130.50	400,584.50	—15,561.66
Firemen's, N. J.....	121,678.08	915,339.69	674,631.42		32,782.80	8,813.86	1,108.50	1,784,354.35	65,612.59
Firemen's, Ohio.....	84,147.81	222,064.39	108,020.00	1,200.00	44,950.77	17,257.82	1,414.48	479,055.27	—2,323.11
Fire Association, N. Y.....			419,257.50	25,000.00	60,925.61	34,519.12	4,166.66	543,868.89	206,837.37
Fire Association, Pa.....	47,700.00	1,373,080.29	2,680,582.50	145,000.00	126,162.78	135,143.78	19,109.35	4,523,778.70	142,996.41
Franklin.....	4,650.00	58,161.95	250,340.00		32,114.29	34,547.75	1,416.22	381,230.21	10,994.59
Franklin Fire.....	322,150.00	680,322.36	1,098,466.00	849,000.00	201,288.50	49,890.45	1,485.18	3,202,802.49	21,563.94
Fireman's Fund.....	300,000.00	278,196.71	966,540.00	351,550.00	133,136.24	200,362.56	84,990.80	2,314,776.31	132,851.13
Fire Ins. Co. of Philadelphia	53,000.00	262,274.79	394,185.00	51,900.00	23,635.04	19,464.75	2,147.12	806,506.70	33,935.18
German, Ill.....	17,000.00	1,264,665.57	275,735.00	59,955.50	220,167.59	131,731.57	4,345.00	1,973,649.83	268,667.27
German Fire, Ill.....	6,000.00	261,085.71	5,000.00	17,740.82	83,755.99	39,037.98	7,055.45	419,675.95	—14,990.56
German Fire, Pa.....	46,480.22	207,399.44	145,281.38	8,000.00	23,318.09	18,854.55	897.50	450,231.18	—17,316.52
German American.....	580,000.00	86,680.00	1,960,675.00	6,500.00	42,325.33	117,901.74	14,636.60	2,808,718.67	125,056.03
German Savings.....	41,000.00	193,748.60	4,918,169.00		235,553.23	233,860.36	550.00	5,388,582.59	102,283.71
Girard F. & M.....	296,000.00	650,352.00	369,960.84	20,600.00	82,284.33	1,387.80	412.16	267,628.88	6,538.25
Glens Falls.....	13,000.00	652,688.62	772,210.00	3,000.00	184,546.72	49,450.22	4,704.78	1,461,558.75	42,654.46
Grand Rapids Fire.....	3,200.00	171,322.50	25,450.00	70,200.00	20,042.75	8,030.35	1,981.50	300,227.30	24,632.01
Greenwich.....	170,000.00	18,328.00	963,027.50	73,850.00	63,739.44	109,677.80	5,128.57	1,406,811.31	44,321.73
Guardian Fire.....		3,000.00	247,006.00		7,845.16	5,075.21		262,920.37	1,450.93
Hanover Fire.....		88,367.50	2,176,702.50	300.00	83,097.06	140,785.31	14,129.22	2,503,381.59	23,727.11
Hartford Fire.....	543,675.60	1,202,623.68	2,912,716.00	53,500.00	634,201.67	384,632.90	18,710.72	5,750,080.47	461,476.50
Herkira Fire.....	13,095.00	360,711.00		5,900.00	61,115.62	15,380.27	1,474.02	459,675.91	18,943.51
Hibernia.....	164,300.00	53,665.87	259,700.00		17,851.13	50,211.40	37,500.42	587,932.82	70,534.54
Home.....	1,345,675.14	714,377.60	5,609,849.89	239,400.00	359,833.26	604,748.75	66,021.23	8,939,905.87	878,793.25



Ins. Co. of North America.....	345,424.47	2,361,170.53	4,456,267.00	61,890.00	722,412.88	519,237.67	194,504.01	8,690,996.56	254,405.60
Ins. Co. of the State of Penn'a.....	228,800.00	111,802.25	238,160.00	10,000.00	46,665.78	20,702.41	17,912.36	674,632.56	28,108.09
Jersey City.....	55,400.00	171,743.13	114,154.00	44,200.00	19,231.45	3,721.14	2,152.84	910,642.56	21,085.24
Liberty.....	.....	.....	952,500.00	.....	325,076.35	102,379.91	.....	1,379,956.26	180,423.58
Long Island.....	.....	202,234.73	188,902.49	.....	68,849.88	6,414.08	120.00	466,021.18	26,572.78
Manufacturer's and Builders Fire	.....	103,260.75	399,895.50	23,300.00	13,649.08	26,481.50	1,113.86	477,700.69	16,404.96
Marine.....	2,000.00	9,250.00	181,550.00	43,384.91	11,736.03	4,370.81	1,200.00	253,491.75	9,838.20
Mechanics.....	97,900.00	243,728.94	207,830.00	70,000.00	11,781.54	13,735.22	3,493.47	648,469.17	31,216.05
Mechanics, Ohio.....	.....	103,477.08	252,850.00	.....	38,944.34	8,696.85	4,167.67	408,135.94	23,180.93
Mercantile F. & M., Mass.....	25,841.06	587,044.00	.....	4,000.00	31,465.02	15,141.85	22,535.88	686,027.81	21,242.80
Merchants, R. I.....	86,604.13	295,656.00	18,910.00	18,910.00	41,154.25	26,826.00	679.28	469,829.66	1,254.51
Merchants, N. J.....	102,757.15	425,135.78	778,045.75	5,000.00	85,927.80	126,550.82	5,167.40	1,528,784.20	216,753.02
Michigan F. & M.....	10,351.17	604,117.81	30,525.00	.....	39,414.54	38,842.04	200.00	1,715,450.56	392,903.19
Milwaukee Mechanics.....	34,800.00	738,415.98	567,705.00	53,050.00	101,895.72	38,920.44	5,870.00	1,535,067.14	71,375.86
Mutual Fire.....	.....	.....	1,362,456.25	.....	61,238.12	63,890.96	5,574.19	1,493,179.52	228,675.55
National Fire, Conn.....	24,475.40	644,854.55	1,387,796.00	5,450.00	142,141.91	109,082.23	12,778.07	2,326,581.16	319,723.82
National Fire, N. Y.....	.....	36,775.02	297,137.50	30,000.00	20,195.37	26,155.85	1,673.75	411,937.47	13,640.25
Newark Fire.....	51,329.00	384,731.04	212,849.87	4,000.00	44,949.68	15,172.64	1,868.33	714,500.56	14,920.42
New Hampshire Fire.....	.....	369,445.62	958,699.00	52,600.00	61,936.96	67,428.42	.....	1,505,110.00	236,021.61
New York Bowery Fire.....	.....	23,052.39	646,720.00	17,787.50	35,427.86	44,682.40	2,906.26	770,576.41	21,644.44
New York Fire.....	108,400.00	39,462.63	190,168.60	.....	8,673.48	16,486.32	2,212.25	365,403.28	.....
Niagara Fire.....	514,767.18	47,348.17	1,359,989.40	47,450.00	192,978.38	175,545.26	22,056.98	2,360,135.37	122,643.87
North American.....	7,899.30	69,870.09	243,008.00	27,600.00	15,467.55	21,590.07	1,985.84	387,420.85	31,961.26
Northwestern National.....	377,741.51	855,130.00	855,130.00	.....	175,744.24	51,812.73	3,100.00	1,463,528.48	69,968.41
Ohio Farmers.....	21,626.71	959,731.67	138,003.57	28,500.00	137,992.39	191,317.02	4,155.78	1,476,327.14	61,129.60
Orient.....	16,125.69	245,108.92	1,224,648.41	30,540.00	69,740.57	134,539.91	23,999.20	1,743,802.70	76,110.28
Park Fire.....	.....	216,700.00	.....	.....	1,908.95	6,200.88	5,100.00	229,909.83	13,779.40
Packers and Provision Dealers.....	.....	89,668.75	.....	.....	2,172.74	.....	492.50	310,605.64	18,376.63
Pacific Fire.....	70,000.00	126,807.63	491,243.75	600.00	28,994.66	27,683.30	3,641.17	738,969.91	8,841.88
Penn'a Fire.....	155,500.00	334,839.44	1,839,720.00	495,125.00	45,655.10	131,927.70	3,785.94	3,106,553.18	215,655.84
Peoples.....	57,950.00	174,893.50	38,463.00	1,250.00	22,377.95	21,398.77	1,748.42	318,076.64	4,384.75
Peoples Fire, N. H.....	.....	178,844.34	238,584.25	12,877.99	69,354.57	62,500.91	3,013.70	365,175.76	68,337.41
Peoples Fire, N. Y.....	.....	310,710.00	3,700.00	.....	8,394.58	17,157.96	2,826.00	342,728.64	12,759.89
Phoenix.....	1,693,597.59	202,933.49	1,691,602.00	3,350.00	492,076.53	8,277.28	4,524,896.02	4,524,896.02	536,130.77
.....	231,594.10	805,126.44	3,421,069.00	33,922.50	307,789.55	260,628.07	1,117.51	5,061,247.17	282,778.04
Providence Washington.....	.....	.....	934,805.00	.....	53,745.26	100,820.90	56,777.12	1,174,146.28	57,289.58
Reliance.....	107,500.00	127,740.21	529,590.00	.....	83,752.39	11,747.88	1,147.10	831,467.53	23,412.06
Rochester German.....	188,461.57	243,737.71	148,425.00	.....	82,075.16	50,485.88	83.33	712,825.65	40,681.17
Rockford.....	39,405.00	273,484.04	61,590.00	106,350.00	63,801.16	44,547.25	5,052.17	594,269.62	20,221.34
Rutgers Fire.....	77,000.00	62,670.00	262,670.00	7,200.00	13,108.46	2,467.58	2,654.61	419,633.15	9,148.03

TABLE B.—CONTINUED

COMPANIES.	Value of Real Estate Owned.	Loans Secured by Mortgages on Real Estate.	Market Value of Bonds and Stocks Owned.	Loans Secured by Bonds and Stocks as Collateral.	Cash on Hand and in Bank.	Premiums in Course of Collection.	All Other Assets.	Total Admitted Assets.	Increase or Decrease as Compared with 1887. (—Shows Decrease.)
St. Paul F. & M. Security.....	\$108,479.59	\$509,163.71	\$488,035.75	\$335,390.00	\$116,501.75	\$71,896.92	\$46,480.79	\$1,675,948.51	\$143,593.85
Springfield F. & M. ....	34,388.14	127,625.00	359,206.50	27,300.00	22,041.84	67,777.75	8,601.42	646,940.65	8,088.38
Spring Garden.....	110,853.00	231,568.06	2,478,324.00	32,900.00	131,479.65	191,626.00	23,391.17	8,200,141.88	100,237.90
Standard Fire.....	212,500.00	350,823.40	406,525.00	248,200.00	66,582.00	13,076.73	218.16	1,297,925.29	9,673.07
	7,500.00	8,040.00	341,300.00	.....	16,591.46	7,096.23	297.50	380,825.21	—17,943.11
State.....	94,580.00	117,235.66	14,475.00	7,300.00	54,295.20	59,376.60	1,927.88	349,190.34	18,707.33
Sun.....	90,000.00	263,367.57	88,115.48	.....	16,260.85	57,222.87	36,889.70	550,856.47	21,794.20
Sun Mutual.....	83,000.00	54,577.36	577,481.90	55,782.12	120,600.45	88,945.75	3,675.39	984,062.97	19,885.98
Syndicate.....	.....	80,261.69	123,660.00	58,400.00	28,300.04	12,808.44	3,886.53	309,316.70	18,618.23
Teutonia Fire.....	81,392.65	46,718.47	109,830.00	9,625.00	14,532.56	2,570.57	1,339.37	266,008.62	3,649.53
Traders.....	1,500.00	207,622.35	1,016,148.75	.....	60,638.00	43,285.85	16,381.80	1,345,574.75	—34,759.83
Union, Pa.....	160,000.00	7,687.50	335,401.50	.....	27,882.91	96,032.15	4,041.89	691,065.95	—103,473.90
Union, Cal.....	115,000.00	199,333.00	780,840.00	23,000.00	49,680.06	99,028.49	52,181.73	1,319,063.28	146,808.85
United Firemens.....	117,950.00	544,343.79	241,775.00	70,000.00	24,166.14	11,937.85	8,287.87	1,018,460.65	91,879.39
United States Fire.....	.....	577,506.29	57,487.50	1,500.00	2,240.00	26,936.89	507.50	666,178.18	38,883.51
Westchester Fire.....	2,000.00	354,895.13	873,700.00	5,500.00	93,825.92	77,530.95	.....	1,407,452.00	63,865.35
Western.....	45,000.00	199,148.75	165,275.00	.....	23,861.30	12,512.93	641.25	446,939.23	—1,072.10
Western Home.....	.....	188,395.01	.....	13,351.35	56,987.90	28,125.02	3,469.68	290,328.96	.....
Williamsburg City Fire.....	684,843.90	277,292.61	343,141.15	950.00	28,128.00	60,053.61	21,132.00	1,365,541.27	79,962.96
Total American.....	\$14,373,333.90	\$33,859,366.21	\$87,309,088.85	\$7,304,223.19	\$11,195,366.59	\$8,975,567.57	\$1,309,650.51	\$164,326,602.83	.....

TABLE B.—CONTINUED.  
*Foreign Companies—United States Branches.*

COMPANIES.	Value of Real Estate Owned.	Loans Secured by Mortgages on Real Estate.	Market Value of Bonds and Stocks Owned.	Loans Se- cured by Bonds and Stocks as Collateral.	Cash on Hand and in Bank.	Premiums in Course of Collection.	All Other Assets.	Total Admitted Assets.	Increase or Decrease as Compared with 1887. (—Shows Decrease.)
British America.....			\$707,746.01		\$46,157.95	\$81,655.80	\$5,915.03	\$841,474.79	\$37,701.67
British and Foreign Marine.....			688,303.73		55,949.96	125,483.63	21,591.93	561,323.25	
City of London Fire.....			625,640.00		45,230.63	82,758.75	734,273.84	2,807,873.61	25,301.80
Commercial Union.....	\$548,700.47		1,510,700.00		351,761.68	384,415.69	12,236.37	91,847.59	
Guardian Fire.....		\$70,651.25	1,225,437.50		138,126.37	46,744.62	11,254.17	1,492,213.91	100,289.42
Hamburg Bremen.....		20,000.00	984,976.25	\$30,000.00	49,395.63	59,895.67	4,390.12	1,148,657.67	19,053.78
Imperial Fire.....	412,272.50		970,068.00		71,486.50	154,546.18	5,498.06	1,613,871.24	30,420.93
Lancashire.....			1,486,092.50		104,157.37	116,162.81		1,706,412.18	64,217.27
Lion Fire.....		168,921.25	508,000.00	9,500.00	62,020.54	76,007.15	4,900.87	829,349.81	27,537.87
Liverpool & London & Globe.....	1,500,000.00	1,859,536.46	2,351,975.00		713,134.20	510,422.01	28,744.24	6,963,811.91	170,236.09
London Assurance Corporation.....			1,416,720.75		82,900.90	93,422.79		1,593,044.44	49,049.64
London and Lancashire.....			1,782,893.00		103,796.39	133,001.91		2,019,691.30	404,050.57
Mannheim.....			254,000.00		3,786.20	25,963.39	1,391.70	285,143.29	3,541.42
Marine.....			508,000.00		86,887.44	87,539.18	4,893.29	637,379.91	33,506.77
Northern Assurance Company.....	106,357.68		1,202,390.87		84,492.76	103,232.03		1,496,473.34	37,448.67
North British and Mercantile.....			3,060,358.00		112,959.16	237,070.93	62,227.67	3,472,613.76	124,779.95
Norwich Union.....			1,135,461.71		199,483.67	61,537.64	14,961.50	1,411,444.52	95,957.85
Phoenix Assurance.....			1,539,430.00		145,886.23	175,557.35		1,858,873.58	34,127.71
Queen.....	30,000.00		1,816,440.00		245,407.14	33,670.30	8,283.33	2,133,800.77	105,903.57
Royal.....	1,818,200.10		2,613,780.00		328,711.82	433,309.21	39,192.47	5,233,693.60	388,499.05
Scottish Union and National.....		585,502.41	708,815.55		164,291.61	58,950.32	8,350.64	1,525,910.53	104,161.79
Sea.....			254,000.00		21,626.05	44,933.24		320,559.30	
Sun Fire Office.....	30,000.00	923,045.01	644,500.00		171,859.69	146,592.01	10,206.46	1,926,203.14	77,583.80
Transatlantic Fire.....			415,000.00	50,000.00	26,866.87	25,486.09		518,352.96	17,505.49
Union Marine.....			374,775.00		18,721.64	32,407.16	4,213.48	430,117.28	18,001.06
Western.....			832,202.50		59,629.13	122,787.48	46,726.21	1,061,345.32	6,063.67
Total Foreign.....	\$4,445,530.75	\$3,627,656.38	\$29,558,704.37	\$89,500.00	\$3,444,726.91	\$3,452,114.44	\$295,682.00	\$44,943,915.25	

TABLE C.

*Showing the Total Liabilities, and the Several Items Comprising the Same, at the Close of 1888, of Fire and Marine Insurance Companies Operating in Minnesota in 1889, also the Total Admitted Assets, the Surplus Over Liabilities and the Unadmitted Assets.*

NAMES OF COMPANIES.	LIABILITIES.					Total Admitted Assets.	Surplus Over Liabilities Including Capital. (— Shows Impairment.)	Assets not Admitted.
	Paid Capital.	Reinsurance Reserve.	Unpaid Losses.	Other Liabilities.	Total Liabilities Including Capital.			
Ætna.....	\$4,000,000.00	\$1,921,749.11	\$187,678.43	\$64,809.15	\$6,174,236.69	\$9,780,751.63	\$3,606,514.94	.....
Agricultural .....	500,000.00	1,155,918.14	48,279.22	30.00	1,704,227.36	1,990,200.61	285,973.25	.....
Amazon.....	300,000.00	148,440.85	19,481.79	1,239.00	469,161.64	535,517.63	66,355.99	\$1,431.78
American.....	300,000.00	161,087.46	27,035.41	7,165.23	495,288.10	624,275.66	128,987.56	.....
American, N. J.....	600,000.00	357,808.10	37,125.25	13,885.21	1,008,818.56	1,965,052.83	956,234.27	.....
American Fire, N. Y.....	400,000.00	311,034.00	32,378.31	16,764.10	760,176.41	1,308,514.32	548,337.91	.....
American Fire, Pa.....	500,000.00	1,464,557.21	163,638.02	3,305.00	2,131,500.23	2,500,916.21	369,415.98	.....
American Central.....	600,000.00	395,046.92	68,810.97	11,830.68	1,075,688.57	1,307,640.91	231,952.34	.....
Anglo-Nevada.....	2,000,000.00	486,624.52	53,328.73	10,822.02	2,590,775.27	2,626,589.70	73,814.43	.....
Boatmans F. & M.....	250,000.00	106,634.62	30,089.31	19,603.00	406,376.93	392,899.70	—13,477.23	.....
Boston Marine.....	1,000,000.00	395,414.07	187,919.00	.....	1,583,333.07	2,420,058.55	845,725.48	.....
Boylston.....	557,200.00	201,461.70	34,900.00	3,268.10	796,829.80	941,483.57	144,653.77	.....
Buffalo German.....	200,000.00	311,146.49	16,273.26	7,731.56	535,171.31	1,329,884.32	794,713.01	2,492.68
Burlington.....	200,000.00	68,923.14	11,370.80	7,487.05	387,760.99	307,132.40	19,351.41	29,023.86
California.....	600,000.00	411,442.41	94,570.92	17,085.84	1,123,099.17	1,313,286.04	190,186.87	.....
Citizens, N. Y.....	300,000.00	460,757.16	52,627.42	19,173.87	832,558.45	1,126,197.79	293,639.34	.....
Citizens, Pa.....	500,000.00	162,344.37	17,066.30	595.69	680,006.36	693,107.10	13,100.74	.....
Commerce.....	200,000.00	72,885.77	15,071.00	1,556.20	289,512.97	470,275.61	180,762.64	.....
Commercial.....	200,000.00	172,794.76	25,227.44	3,339.32	401,361.52	450,086.70	48,725.18	.....
Commonwealth.....	500,000.00	103,462.74	9,899.23	3,049.72	616,411.69	713,533.76	97,122.07	.....
Concordia Fire.....	200,000.00	296,709.52	33,257.48	.....	536,889.37	581,385.65	44,496.28	.....
Connecticut Fire.....	1,000,000.00	696,382.84	109,815.34	.....	1,806,198.18	2,260,917.01	454,718.83	.....
Continental.....	1,000,000.00	2,501,884.39	204,763.24	95,005.40	3,801,653.03	5,093,344.69	1,226,691.66	.....
Detroit, F. & M.....	350,000.00	127,452.90	13,175.31	29,262.50	490,890.71	922,239.24	431,408.53	.....
Eagle Fire.....	300,000.00	100,132.57	8,711.26	5,993.96	414,887.79	1,091,422.57	676,534.78	.....



Empire State.....	200,000.00	35,412.69	8,040.47	208.42	247,453.16	248,523.59	1,070.43
Enterprise F. & M.....	300,000.00	40,089.32	1,362.50	2,680.80	241,654.24	245,057.48	4,021.24
Equitable F. & M.....	300,000.00	142,223.37	20,699.00	2,660.80	465,589.17	568,642.85	103,053.68
Exchange Fire.....	200,010.00	133,652.88	35,000.00	10,942.77	379,605.65	480,148.95	100,943.30
Farmers Fire.....		267,371.69	19,055.77	2,682.31	289,099.77	526,965.59	237,865.82
Farragut Fire.....	200,000.00	106,552.11	11,044.70	3,886.52	321,483.33	400,534.50	79,051.17
Firemen, N. J.....	600,000.00	210,907.65	23,565.82	4,448.59	838,921.77	1,754,354.35	915,432.58
Firemen, Ohio.....	250,000.00	149,029.68	18,444.16	4,180.54	421,654.38	479,055.27	57,400.89
Fire Association, N. Y.....	300,000.00	140,237.04	25,040.00	2,580.17	467,887.21	543,868.89	76,011.68
Fire Association, Pa.....	500,000.00	3,000,737.50	189,085.42		3,689,822.92	4,523,778.70	833,955.78
Franklin.....	200,000.00	120,743.84	2,608.43	4,567.75	327,920.02	381,230.21	53,310.19
Franklin Fire.....	400,000.00	1,774,266.37	55,436.98	7,775.59	2,227,476.94	3,202,802.49	965,325.55
Firemans Fund.....	1,000,000.00	772,244.25	68,983.53	41,461.57	882,689.15	2,314,776.31	432,087.16
Fire Ins. Co. of the County of Phila.....	1,400,000.00	233,449.39	12,178.40	5,491.27	1,881,122.06	806,506.70	155,384.64
German, Ill.....	200,000.00	1,313,704.06	85,483.00	24,591.72	1,623,778.78	1,978,649.83	349,871.05
German Fire, Ill.....	300,000.00	95,291.07	19,054.30	1,017.60	415,982.97	419,675.95	3,712.98
German Fire, Pa.....	200,000.00	158,985.44	10,606.58	1,000.00	370,592.02	490,231.18	79,639.16
Germania Fire.....	1,000,000.00	1,015,054.30	67,219.29		2,082,273.59	2,808,718.67	726,445.08
German American.....	1,000,000.00	1,890,354.32	198,764.92	55,427.87	3,144,547.11	5,388,532.59	2,243,985.48
German Savings.....	223,800.00	13,181.74		4,070.01	241,051.75	267,772.13	
Girard F. & M.....	300,000.00	459,846.83	24,998.06	12,004.53	836,849.42	1,461,558.75	624,709.33
Glens Falls.....	200,000.00	516,012.59	26,561.18	17,417.53	759,991.30	1,674,895.56	914,904.26
Grand Rapids Fire.....	200,000.00	56,594.14	7,650.00		264,244.14	300,227.30	35,983.16
Greenwich.....	200,000.00	571,688.80	191,380.45	27,000.00	990,069.25	1,405,811.31	415,742.06
Guardian Fire.....	200,000.00	40,066.51	11,250.00	31,465.00	282,781.51	282,920.37	19,861.14
Hanover Fire.....	1,000,000.00	905,572.43	107,551.12	27,704.33	2,040,827.88	2,503,381.59	462,553.71
Karlford Fire.....	1,250,000.00	2,014,565.44	217,032.44	34,500.00	5,516,097.88	5,790,080.47	2,233,982.59
Hekla Fire.....	300,000.00	105,354.05	7,935.57	2,348.29	415,637.91	459,675.91	44,038.00
Hibernia.....	300,000.00	139,874.68	42,573.80	503.00	582,951.48	587,932.82	4,981.34
Home.....	3,000,000.00	3,767,507.00	464,947.38	226,740.28	7,439,194.66	8,939,905.87	1,480,711.21
Insurance Co. of North America.....	3,000,000.00	2,820,733.92	218,911.00	18,404.99	6,058,049.91	8,690,996.56	2,632,946.65
Ins. Co. of the State of Pennsylvania.....	200,000.00	337,427.47	31,064.00	2,183.00	570,674.47	674,042.50	103,868.33
Jersey City.....	250,000.00	76,758.66	10,685.23	572.11	338,016.00	410,632.56	72,616.56
Liberty.....	800,000.00	365,770.47	61,248.07	37,529.56	1,264,548.10	1,379,956.26	115,408.16
Long Island.....	300,000.00	137,916.98	15,955.44	2,700.00	446,572.42	466,021.18	19,448.76
Manufacturers and Builders Fire.....	200,000.00	127,379.52	21,203.41	9,328.55	357,911.49	477,700.69	119,789.20
Marine.....	200,000.00	21,566.65	1,199.37	7,055.90	293,821.92	293,491.75	23,669.83
Mechanics.....	250,000.00	240,081.38	14,812.79	4,010.51	508,904.68	648,469.17	139,561.49
Mercantile, O.....	200,000.00	72,208.61	6,500.00	2,181.85	280,885.46	408,135.94	127,250.48
Mercantile F. & M, Mass.....	400,000.00	108,451.48	27,863.16	6,178.32	542,492.96	686,027.81	143,534.85

TABLE C.—CONTINUED.

NAMES OF COMPANIES.	LIABILITIES.					Total Admitted Assets.	Surplus Over Liabilities Including Capital. (—Shows Im- pairment.)	Assets not Admitted.
	Paid Capital.	Reinsurance Reserve.	Unpaid Losses.	Other Liabilities.	Total Liabilities including Capital.			
Merchants, R. I.....	\$200,000.00	\$138,100.00	\$19,685.69	\$2,682.95	\$360,468.64	\$460,829.06	\$109,361.02	.....
Merchants, N. J.....	400,000.00	571,001.36	81,478.29	37,318.28	1,088,797.93	1,528,784.20	439,986.27	.....
Michigan F. & M.....	400,000.00	167,641.48	13,928.83	.....	581,570.36	715,450.56	133,880.20	.....
Milwaukee Mechanics.....	200,000.00	446,471.89	26,801.00	176.00	673,448.89	1,535,067.14	861,618.25	.....
Mutual Fire.....	260,214.62	356,928.05	73,845.50	124,989.73	816,077.90	1,493,179.52	678,101.62	.....
National Fire, Conn.....	1,000,000.00	724,429.03	73,799.90	21,226.03	1,819,454.96	2,328,581.16	507,126.20	.....
National Fire, N. Y.....	200,000.00	119,123.39	15,935.27	4,998.08	340,056.74	411,937.47	71,880.73	.....
Newark Fire.....	250,000.00	122,515.61	7,486.74	10,397.67	390,700.02	714,500.56	323,800.54	.....
New Hampshire Fire.....	600,000.00	498,223.78	89,039.75	13,485.68	1,200,749.21	1,505,110.00	304,360.79	.....
New York Bowery Fire.....	300,000.00	280,938.30	64,367.66	6,200.74	651,506.70	770,576.41	119,069.71	.....
New York Fire.....	200,000.00	85,660.93	19,571.00	3,959.00	309,191.93	365,403.28	56,212.35	.....
Niagara Fire.....	500,000.00	1,293,480.69	175,678.89	36,435.53	1,980,595.11	2,360,135.37	373,540.26	.....
North American.....	200,000.00	115,122.69	16,182.18	5,718.89	337,023.76	387,420.85	50,397.09	.....
Northwestern National.....	600,000.00	464,521.71	37,009.46	16,211.67	1,117,742.84	1,463,528.48	345,785.64	.....
Ohio Farmers.....	.....	1,031,454.13	19,763.35	.....	1,051,217.48	1,476,327.14	425,109.66	.....
Orient.....	1,000,000.00	493,617.23	63,358.67	25,005.26	1,581,981.16	1,743,802.70	161,821.54	.....
Park Fire.....	200,000.00	25,705.23	1,400.00	2,666.66	229,711.89	229,969.83	137.94	.....
Packers and Provision Dealers.....	250,000.00	26,131.81	4,402.50	.....	280,534.31	310,605.64	30,071.33	.....
Pacific Fire.....	200,000.00	167,238.36	21,090.40	10,571.30	398,899.66	738,969.91	340,070.25	.....
Pennsylvania Fire.....	400,000.00	1,328,373.60	87,103.89	.....	1,815,477.49	3,106,563.18	1,291,075.69	.....
Peoples.....	200,000.00	96,142.10	16,977.06	397.83	313,516.99	318,076.64	4,559.65	.....
Peoples Fire, N. H.....	250,000.00	240,070.03	31,349.16	12,600.18	533,919.37	565,175.76	31,256.39	.....
Peoples Fire, N. Y.....	200,000.00	82,281.86	13,421.47	7,833.15	303,536.48	342,728.54	39,192.06	.....
Phoenix.....	1,000,000.00	3,117,507.94	194,789.80	18,371.27	4,330,669.41	4,524,596.62	193,927.61	.....
Phoenix.....	2,000,000.00	1,642,656.49	246,175.25	.....	3,888,831.74	5,061,247.17	1,172,415.43	.....
Providence Washington.....	400,000.00	584,330.00	119,080.87	.....	1,103,410.87	1,174,148.28	70,737.41	.....
Reliance.....	300,000.00	212,518.10	14,910.06	1,319.88	528,748.04	831,467.58	302,719.54	.....
Rochester German.....	200,000.00	282,951.99	20,676.96	137.15	503,766.10	712,825.65	209,059.55	.....
Rockford.....	200,000.00	320,504.65	16,719.76	19,198.70	556,423.11	694,239.62	37,846.51	.....
Ruigers Fire.....	200,000.00	45,825.07	6,399.58	10,493.15	262,717.80	419,633.15	156,915.35	.....

St. Paul F. & M.....	500,000.00	646,660.84	81,511.20	16,338.12	1,223,172.04	1,675,948.51	447,776.47	.....
Security.....	250,000.00	269,451.79	36,983.26	28,743.90	572,773.17	646,940.65	74,167.48	.....
Springfield F. & M.....	1,250,000.00	1,172,571.19	130,834.41	2,164.75	2,582,149.50	3,200,141.88	617,992.38	.....
Spring Garden.....	400,000.00	516,524.60	24,026.39	2,665.47	942,715.74	1,297,925.29	335,209.55	.....
Standard Fire.....	200,000.00	43,304.69	4,591.94	.....	250,562.10	380,825.21	130,263.11	.....
State.....	200,000.00	113,258.10	21,677.84	6,788.49	341,724.43	349,190.34	7,465.91	.....
Sun.....	300,000.00	153,410.73	19,646.50	13,326.65	483,983.88	550,856.47	63,872.59	.....
Sun Mutual.....	500,000.00	181,266.00	31,807.00	19,860.10	732,933.10	984,062.97	251,129.87	.....
Syndicate.....	250,000.00	51,891.85	2,864.95	.....	304,756.50	309,316.70	4,559.90	.....
Teutonia Fire.....	200,000.00	36,924.01	286.44	592.80	237,803.25	266,008.62	28,205.37	.....
Traders.....	500,000.00	335,915.22	69,893.13	17,272.73	928,081.08	1,345,574.75	422,493.67	.....
Union, Pa.....	250,000.00	274,949.85	81,026.01	68,234.50	674,210.36	691,065.95	16,836.59	.....
Union, Cal.....	750,000.00	845,979.67	76,229.72	20,272.83	1,192,482.22	1,319,063.28	126,581.06	.....
United Firemens.....	300,000.00	610,512.31	20,132.04	3,092.91	933,737.26	1,018,460.65	84,723.29	.....
United States Fire.....	250,000.00	116,879.04	19,856.37	15,540.38	402,275.79	666,178.18	263,902.39	.....
Westchester Fire.....	300,000.00	724,660.84	67,931.91	.....	1,092,592.75	1,407,452.00	314,859.25	.....
Western.....	300,000.00	94,854.82	18,259.22	3,934.61	416,548.65	445,939.23	29,390.58	.....
Western Home.....	200,000.00	70,377.31	8,374.60	2,072.58	280,824.49	290,328.96	9,504.47	.....
Williamsburg City Fire.....	250,000.00	494,124.19	52,840.89	17,572.21	754,537.29	1,365,541.27	611,003.98	.....
Total American.....	\$56,541,224.62	\$58,372,941.34	\$6,247,291.59	\$1,599,124.84	\$122,760,582.39	\$164,326,602.83	\$41,566,020.44	\$375,657.87

TABLE C.—CONTINUED.  
Foreign Companies—United States Branches.

NAMES OF COMPANIES.	LIABILITIES.					Total Admitted Assets.	Surplus Over Liabilities Including Capital. (—Shows Im- payment.)	Assets not Admitted.
	Paid Capital.	Reinsurance Reserve.	Unpaid Losses.	Other Liabilities.	Total Liabilities Including Capital.			
British America.....		\$390,445.11	\$71,610.49	\$17,466.80	\$479,522.40	\$841,474.79	\$361,952.39	.....
British and Foreign Marine.....		137,780.49	89,262.27	80,025.62	307,068.38	861,329.25	554,260.87	.....
City of London Fire.....		346,185.05	58,127.96	15,245.27	419,558.28	754,273.84	334,715.56	.....
Commercial Union.....		1,631,993.36	185,074.10	52,285.10	1,869,352.56	2,807,873.61	938,520.95	.....
Guardian Fire.....		620,869.91	44,143.93	14,595.13	679,608.97	1,492,213.91	812,604.94	.....
Hamburg Bremen.....		663,805.82	62,925.00	.....	726,730.82	1,148,657.67	421,926.85	.....
Imperial Fire.....		715,093.16	112,259.03	26,532.55	853,934.74	1,613,871.24	759,936.50	.....
Lancashire.....		865,269.44	148,187.66	12,000.00	1,025,457.10	1,706,412.18	680,955.08	.....
Lion Fire.....		265,277.10	36,555.37	12,256.35	314,088.82	829,349.81	515,260.99	.....
Liverpool and London and Globe.....		3,412,177.64	429,119.88	121,987.11	3,963,284.63	6,963,811.91	3,000,527.28	.....
London Assurance Corporation.....		619,130.74	67,303.99	.....	686,434.73	1,593,044.44	906,609.71	.....
London and Lancashire.....		1,029,146.83	152,978.95	8,838.10	1,190,963.88	2,019,691.30	828,727.42	.....
Manheim.....		22,515.82	25,422.05	2,310.04	50,247.91	285,143.29	234,891.38	.....
Marine.....		23,229.74	32,052.99	40,242.41	95,525.14	637,379.91	541,854.77	.....
Northern Assurance Co.....		703,965.26	95,863.88	17,384.00	817,213.14	1,496,473.34	679,260.20	.....
North British and Mercantile.....		1,427,931.26	168,651.72	3,141.42	1,599,734.40	3,472,613.76	1,872,889.36	.....
Norwich Union.....		686,308.12	115,304.79	11,121.11	812,734.02	1,411,444.52	598,710.50	.....
Phoenix Assurance.....		1,093,976.87	188,004.00	43,817.43	1,325,798.30	1,868,873.58	533,075.28	.....
Queen.....		1,139,792.54	183,807.54	14,769.77	1,338,369.85	2,183,800.77	845,437.92	.....
Royal.....		2,548,922.41	290,502.06	176,205.07	3,015,629.54	5,233,693.60	2,218,064.06	.....
Scottish Union and National.....		326,545.81	46,321.26	10,268.01	383,135.08	1,525,910.53	1,142,775.45	.....
Sea.....		37,826.78	38,620.00	10,146.51	81,593.29	320,559.30	288,966.01	.....
Sun Fire Office.....		898,672.46	95,131.00	40,729.47	1,034,532.93	1,926,203.14	891,670.21	.....
Transatlantic.....		132,487.62	16,689.95	3,501.47	152,679.04	518,352.96	365,673.92	.....
Union Marine.....		31,204.15	30,492.74	6,562.79	68,259.68	430,117.28	361,887.60	.....
Western.....		512,113.16	78,423.19	16,015.75	606,552.10	1,061,345.32	454,793.22	.....
Total Foreign.....	\$20,282,666.65	\$2,807,835.80	\$757,490.28	\$23,847,992.73	\$44,943,915.25	\$21,095,922.52	.....	.....



TABLE D.

*Showing the Total Income and General Sources from whence the Same was Derived, for 1888, of the Fire and Marine Insurance Companies Operating in Minnesota in 1889, also Total Expenditures and the Difference Between the Total Income and Total Expenditures.*

COMPANIES.	From Premiums Received.	From Interest and Dividends.	From Rents and All Other Sources.	Total Income.	Total Expenditures.	Excess of Income Over Expenditures.	Excess of Expenditures Over Income.
<i>Etna.....</i>	\$2,608,851.69	\$418,329.27	\$9,992.94	\$3,037,173.90	\$2,985,659.09	\$51,514.81	.....
<i>Agricultural.....</i>	775,842.21	92,320.94	2,841.66	871,004.81	780,237.43	90,767.38	.....
<i>Amazon.....</i>	213,281.78	18,426.47	1,835.90	233,544.15	255,062.17	.....	\$21,518.02
<i>American, Mass.....</i>	245,778.85	25,721.30	6,258.26	277,758.41	243,120.54	34,637.87	.....
<i>American, N. J.....</i>	421,946.57	78,890.55	7,172.06	508,009.18	461,221.18	46,788.00	.....
<i>American Fire, N. Y.....</i>	491,205.78	47,711.17	825.70	539,742.65	534,906.15	4,836.50	.....
<i>American Fire, Pa.....</i>	1,494,828.62	121,102.31	16,435.00	1,632,365.93	1,567,810.15	64,555.78	.....
<i>American Central.....</i>	524,532.74	52,835.58	11,441.58	588,829.90	554,651.10	33,978.80	.....
<i>Anglo-Nevada.....</i>	1,032,523.47	106,132.68	.....	1,140,716.15	977,488.13	163,228.02	.....
<i>Boatmaas F. &amp; M.....</i>	187,302.86	15,490.72	4,291.94	207,094.52	214,628.36	.....	7,533.84
<i>Boston Marine.....</i>	1,026,689.29	77,274.40	.....	1,103,943.69	935,170.12	168,773.57	.....
<i>Boylston.....</i>	289,751.47	49,606.55	8,199.94	346,557.96	314,354.86	32,203.10	.....
<i>Buffalo German.....</i>	392,203.96	41,984.28	18,024.39	452,212.63	386,732.66	65,459.97	.....
<i>Burlington.....</i>	112,122.29	10,741.63	100,355.50	223,219.42	136,766.63	26,452.79	.....
<i>California.....</i>	663,229.00	37,303.80	2,125.00	702,657.80	626,241.34	76,416.46	.....
<i>Citizens, N. J.....</i>	638,157.07	35,945.60	9,736.51	679,839.18	698,108.14	.....	18,268.96
<i>Citizens, Pa.....</i>	251,524.60	26,905.19	5,575.74	284,005.53	256,693.14	27,312.39	.....
<i>Commerce.....</i>	111,427.45	20,702.64	2,616.63	134,747.72	143,921.65	.....	9,173.93
<i>Commercial.....</i>	402,724.63	36,234.06	.....	438,958.69	435,610.25	3,348.44	.....
<i>Commonwealth.....</i>	210,599.85	19,183.59	.....	229,763.44	147,915.84	81,847.60	.....
<i>Concordia Fire.....</i>	409,177.08	27,519.21	240.00	436,636.29	401,418.68	35,517.61	.....
<i>Connecticut Fire.....</i>	1,015,125.32	93,643.58	.....	1,114,768.90	1,024,228.06	90,540.84	.....
<i>Continental.....</i>	245,145.43	189,394.24	39,399.38	2,473,939.05	2,305,322.59	168,616.46	.....
<i>Detroit F. &amp; M.....</i>	237,546.12	20,269.26	1,445.36	289,260.74	229,085.95	60,174.79	.....
<i>Eagle Fire.....</i>	110,109.69	23,629.96	30,616.00	164,355.65	155,834.89	8,520.76	.....

TABLE D. — CONTINUED.

COMPANIES.	From Premiums Received.	From Interest and Dividends.	From Rents and All Other Sources.	Total Income.	Total Expenditures.	Excess of Income over Expenditures.	Excess of Expenditures over Income.
Empire State.....	\$67,476.84	\$12,396.51	\$11,189.76	\$79,873.35	\$41,378.09	\$38,495.26	
Enterprise F. & M.....	69,525.92	7,376.15	4,885.59	87,091.83	82,938.85	4,152.98	
Equitable F. & M.....	228,366.26	20,313.54		253,165.39	247,390.50	5,774.89	
Exchange Fire.....	379,395.15	15,022.76		394,327.21	434,477.48		\$39,749.57
Farmers Fire.....	297,500.58	24,346.00	1,725.60	323,572.18	296,429.34	27,142.84	
Farragut Fire.....	153,483.33	14,336.79	480.00	168,300.12	192,422.65		
Firemens, N. J.....	288,706.88	86,934.96	7,920.07	383,561.91	347,066.75	36,495.16	24,122.53
Firemens, Ohio.....	200,920.14	20,461.06	7,792.73	229,173.93	214,677.53	14,496.40	
Fire Association, N. Y.....	289,200.27	10,356.69		269,556.96	190,820.01	78,736.95	
Fire Association, Pa.....	1,612,443.67	209,173.13	8,524.06	1,830,140.86	1,851,035.48		20,894.62
Franklin.....	166,142.47	12,931.41	2,964.30	182,038.18	178,121.26	3,916.92	
Franklin Fire.....	481,297.92	129,419.20	12,927.13	623,644.25	590,026.39	33,617.86	
Firemans Fund.....	1,115,137.23	82,899.00	20,438.22	1,218,474.45	1,112,926.25	105,548.20	
Fire Insurance Co. of the County of Philadelphia	167,217.03	36,340.33	6,094.27	209,651.63	181,110.38	28,541.25	
German, Ill.....	1,241,527.03	115,826.86	8,392.34	1,360,746.23	1,231,344.25	129,401.98	
German Fire, Ill.....	210,401.76	20,373.23	180.93	230,955.92	237,545.80		6,589.88
German Fire, Pa.....	195,946.85	21,119.80	360.50	217,427.15	238,394.45		20,967.30
Germania Fire.....	1,197,700.32	114,900.10		1,312,600.42	1,186,302.90	126,297.52	
German American.....	2,339,555.30	209,817.00		2,549,372.30	2,553,617.52		4,245.22
German Savings.....	13,388.06	15,565.69		31,198.25	25,903.27	5,294.98	
Girard, F. & M.....	379,277.48	52,414.77	8,248.54	430,940.74	396,270.75	43,669.99	
Glen's Falls.....	489,756.12	78,043.84	350.00	568,149.96	492,504.61	75,645.35	
Grand Rapids Fire.....	108,140.08	15,099.64		123,239.72	98,243.12	24,996.60	
Greenwich.....	902,501.05	40,798.10	11,690.08	954,989.23	937,073.17	17,016.06	
Guardian Fire.....	52,027.13	8,380.00	1,201.67	61,608.80	82,963.84		21,355.04
Hanover Fire.....	1,248,015.41	91,431.89		1,339,447.30	1,347,561.24		8,113.94
Hartford Fire.....	2,594,587.57	230,331.58	22,795.47	2,847,714.62	2,430,646.79	417,067.83	
Hektia Fire.....	113,324.40	28,360.47		141,684.87	120,858.54	20,826.33	
Hibernia.....	323,838.74	13,031.26		336,870.00	242,117.69	94,752.31	
Home.....	4,337,771.95	218,121.73	91,131.26	4,647,024.94	4,173,620.32	473,404.62	

Insurance Company of North America.....	3, 488, 988.37	356, 474.08	47, 326.71	3, 892, 787.16	3, 747, 615.74	145, 171.42
Insurance Company of the State of Pennsylvania.	307, 206.55	19, 185.89	21, 049.30	317, 441.74	339, 825.42	7, 616.32
Jersey City.....	98, 950.63	17, 852.44	3, 625.94	120, 429.01	99, 586.33	20, 842.68
Liberty.....	621, 228.85	36, 530.02		667, 758.87	542, 800.73	124, 958.14
Long Island.....	233, 026.20	19, 150.22		252, 176.42	227, 461.40	24, 715.02
Manufacturers and Builders Fire.....	197, 221.18	21, 154.94	6, 316.68	224, 692.80	238, 481.87	13, 789.07
Marine.....	45, 855.18	12, 772.30		58, 627.48	50, 761.54	7, 865.94
Mechanics.....	138, 044.59	25, 185.45	3, 082.70	166, 313.74	152, 149.03	14, 164.71
Mercantile, Ohio.....	167, 130.77	16, 747.05		183, 877.82	161, 983.36	21, 894.46
Mercantile F. & M. Mass.....	175, 091.28	36, 935.56	9, 364.56	221, 391.33	202, 653.15	18, 738.18
Merchants, R. I.....	219, 644.71	20, 042.97		239, 687.68	237, 194.53	2, 503.15
Merchants, N. J.....	778, 813.03	57, 980.95	2, 566.32	839, 310.30	689, 403.63	149, 406.67
Michigan F. & M.....	275, 872.29	30, 505.73	57, 403.52	363, 781.54	235, 458.93	128, 322.61
Milwaukee Mechanics.....	494, 327.23	71, 880.06	1, 389.89	567, 557.18	503, 383.83	64, 173.35
Mutual Fire.....	653, 365.12	50, 501.29		709, 864.41	645, 821.88	64, 042.53
National Fire, Conn.....	1, 376, 155.93	105, 939.14	2, 634.00	1, 484, 729.07	1, 172, 729.77	311, 999.30
National Fire, N. Y.....	218, 787.15	11, 032.08		229, 819.22	229, 246.92	572.30
Newark Fire.....	177, 415.55	29, 483.97	1, 265.00	208, 164.52	197, 331.43	10, 833.09
New Hampshire Fire.....	682, 019.43	64, 821.40		746, 840.83	616, 438.01	130, 402.82
New York Bowery Fire.....	425, 482.57	28, 019.96		453, 503.53	481, 223.53	27, 720.00
New York Fire.....	155, 447.18	8, 735.66	3, 711.97	167, 894.81	172, 666.76	4, 771.95
Niagara Fire.....	1, 756, 176.68	63, 870.66	18, 032.89	1, 838, 030.23	1, 761, 364.30	76, 715.93
North American.....	159, 396.02	13, 850.05	5, 886.61	179, 082.68	154, 202.07	24, 880.61
Northwestern National.....	479, 416.04	56, 398.46	5, 587.28	541, 401.78	493, 107.97	48, 293.81
Ohio Farmers.....	587, 609.53	59, 332.19		646, 941.72	593, 695.02	53, 246.70
Orient.....	749, 832.48	75, 882.54	310.59	826, 025.61	760, 381.68	65, 643.83
Park Fire.....	43, 128.55	10, 650.00	457.18	54, 235.73	71, 137.07	16, 301.34
Packers and Provision Dealers.....	50, 335.67	13, 560.10		63, 895.77	47, 302.88	18, 593.39
Pacific Fire.....	247, 482.80	22, 148.49	2, 362.49	271, 998.78	263, 977.51	2, 016.27
Pennsylvania Fire.....	1, 010, 192.18	134, 455.84	2, 700.39	1, 147, 348.41	1, 002, 673.74	144, 774.67
Peoples.....	137, 132.28	12, 856.42	4, 302.33	204, 341.03	210, 865.88	6, 524.85
Peoples Fire, N. H.....	415, 400.87	24, 408.63		439, 809.50	385, 280.68	54, 528.82
Peoples Fire, N. Y.....	132, 716.59	9, 836.02		142, 552.61	165, 149.68	
Phenix.....	3, 171, 612.03	98, 651.09	66, 590.24	3, 336, 853.36	3, 767, 297.31	27, 597.07
Phenix.....	2, 345, 857.12	229, 729.55	5, 997.39	2, 581, 684.06	2, 338, 357.81	430, 443.95
Providence, Washington.....	969, 236.99	40, 791.24		1, 010, 088.23	927, 103.63	82, 984.60
Reliance.....	160, 092.69	32, 692.67	2, 903.65	195, 599.01	169, 462.27	26, 136.74
Rochester German.....	384, 225.83	20, 554.76	1, 702.93	396, 483.52	372, 063.69	24, 419.83
Rockford.....	348, 958.08	27, 013.71	1, 985.64	377, 907.43	340, 178.39	37, 729.04
Rutgers Fire.....	77, 538.62	20, 684.76	2, 940.10	101, 163.48	105, 633.35	4, 469.87

TABLE D.—CONTINUED.

COMPANIES.	From Premiums Received.	From Interest and Dividends.	From Rents and All Other Sources.	Total Income.	Total Expenditures.	Excess of Income over Expenditures.	Excess of Expenditures over Income.
St. Paul F. & M. Security.....	\$1,039,827.24	\$92,331.24	\$8,318.50	\$1,140,476.98	\$972,936.78	\$167,540.20	.....
Springfield F. & M. ....	541,178.90	24,486.21	238.18	565,923.29	558,047.97	7,875.32	.....
Spring Garden.....	1,584,393.59	129,754.93	4,054.25	1,718,202.79	1,533,161.47	135,041.32	.....
Standard Fire.....	238,788.55	53,422.98	5,991.89	318,202.42	316,190.10	2,012.32	.....
.....	63,532.37	11,919.26	765.00	76,216.63	95,126.20	.....	18,909.57
State.....	334,565.92	12,754.32	5,083.79	352,404.03	350,468.80	1,935.23	.....
Sun.....	272,705.71	21,899.49	5,695.64	300,300.84	282,318.73	17,982.11	.....
Sun Mutual.....	430,992.39	41,822.27	.....	475,814.66	441,893.75	33,920.91	.....
Syndicate.....	84,138.36	17,357.02	849.45	102,344.83	92,389.92	9,954.91	.....
Teutonia Fire.....	22,566.34	7,784.42	2,223.66	32,574.42	28,916.20	3,658.22	.....
Traders.....	537,869.55	51,902.18	.....	589,771.73	609,538.47	.....	19,766.74
Union, Pa.....	440,264.71	21,367.20	9,598.95	471,230.86	502,631.04	.....	31,400.18
Union, Cal.....	694,555.46	33,626.58	8,461.10	736,643.14	679,816.90	56,826.24	.....
United Firemans.....	204,591.37	41,985.56	1,320.00	247,896.93	197,549.00	50,347.93	.....
United States Fire.....	194,970.89	26,377.72	521.65	221,870.26	178,959.55	42,910.71	.....
Westchester Fire.....	914,893.40	54,642.99	144.00	969,680.39	902,858.76	66,821.63	.....
Western.....	166,349.33	18,992.18	904.17	186,245.68	185,018.78	1,226.90	.....
Western Home.....	124,949.61	12,743.54	10,523.53	148,216.68	134,494.34	13,722.34	.....
Williamsburg City Fire.....	554,732.41	30,075.83	20,051.68	604,919.97	583,998.10	70,921.87	.....
Total American.....	\$70,013,248.65	\$6,399,736.71	\$876,738.26	\$77,289,723.62	\$72,095,681.30	\$5,193,869.76	\$799,827.44



TABLE D.—CONTINUED.  
*Foreign Companies—United States Branches.*

COMPANIES.	From Premiums Received.	From Interest and Dividends.	From Rents and all Other Sources.	Total Income.	Total Expenditures.	Excess of Income Over Expenditures.	Excess of Income Over Expenditures.
British America.....	\$582,551.21	\$26,755.03	.....	\$609,306.24	\$580,521.71	\$28,784.53	.....
British and Foreign Marine.....	768,020.43	30,198.23	\$165,691.43	963,910.09	940,489.36	23,420.73	.....
City of London Fire.....	549,570.00	17,550.00	.....	567,590.78	535,746.02	31,844.76	.....
Commercial Union.....	2,287,615.65	56,658.26	10,432.57	2,354,706.48	2,156,648.71	218,117.77	.....
Guardian Fire.....	880,351.69	44,797.08	.....	875,148.17	776,790.04	98,358.13	.....
Hamburg Bremen.....	935,472.91	43,903.19	.....	979,376.00	938,482.59	40,893.41	.....
Imperial Fire.....	1,017,452.29	24,144.35	.....	1,038,791.12	976,389.31	82,401.81	.....
Lancashire.....	1,319,927.62	66,752.48	17,231.48	1,386,680.10	1,349,183.72	37,496.38	.....
Lion Fire.....	434,715.92	25,693.09	.....	460,409.01	413,420.31	46,988.70	.....
Liverpool and London and Globe.....	3,928,010.27	169,953.29	68,962.46	4,166,925.02	3,554,369.15	612,556.87	.....
London Assurance Corporation.....	839,562.12	50,825.00	.....	890,387.12	803,974.21	86,412.91	.....
London and Lancashire.....	1,482,638.85	61,451.80	.....	1,544,090.15	1,180,629.40	363,460.75	.....
Manheim.....	180,177.04	.....	.....	180,177.04	137,586.86	42,590.18	.....
Marine.....	273,338.69	.....	.....	273,338.69	154,686.13	118,652.56	.....
Northern Assurance Company.....	977,479.42	44,753.03	.....	1,022,232.45	978,766.28	43,466.17	.....
North British and Mercantile.....	1,934,291.34	118,245.88	.....	2,052,537.22	1,845,675.96	206,861.26	.....
Norwich Union.....	943,131.07	37,903.86	.....	981,034.93	884,771.33	96,263.60	.....
Phoenix Assurance.....	1,364,416.58	36,940.00	.....	1,401,356.58	1,416,194.26	14,837.68	.....
Queen.....	1,383,969.87	64,022.27	5,051.96	1,462,984.10	1,285,732.68	167,251.42	.....
Royal.....	2,894,863.07	106,721.55	74,509.20	3,039,083.82	2,527,978.06	511,105.76	.....
Scottish Union and National.....	473,023.08	53,796.83	.....	526,819.91	395,651.20	131,168.71	.....
Sea.....	190,668.27	17,500.00	.....	199,286.87	88,886.99	110,399.88	.....
San Fire Office.....	1,102,063.92	59,006.91	1,118.60	1,161,070.83	1,012,768.02	148,302.81	.....
Transatlantic Fire.....	222,362.31	11,330.15	.....	233,692.46	227,045.57	6,646.89	.....
Union Marine.....	275,658.47	12,047.22	28,484.53	316,190.22	300,595.65	15,594.57	.....
Western.....	1,162,961.58	30,564.64	.....	1,193,526.22	1,154,522.45	39,003.77	.....
Total Foreign.....	\$28,324,185.57	\$1,204,514.14	\$372,013.01	\$29,900,712.72	\$26,607,505.97	\$3,218,369.07	\$14,837.68

TABLE E.

*Showing the Various Expenditures During the Year 1888, of the Fire and Marine Insurance Companies Operating in Minnesota in 1889.*

NAMES OF COMPANIES.	Losses.	Dividends.	Commission and Brokerage.	Salaries of Officers and Employees.	Taxes.	All Other	
						Expenditures.	Total Expenditures.
<i>Ætna</i> .....	\$1,415,728.07	\$720,000.00	\$896,240.73	\$168,112.40	\$50,270.31	\$215,309.58	\$2,965,659.09
Agricultural.....	384,790.55	50,100.00	186,483.45	91,350.46	16,221.79	51,290.88	780,237.43
Amazon.....	143,517.59	17,520.90	47,315.33	18,183.01	5,253.95	18,271.39	255,062.17
American, Mass.....	144,812.30	9,322.00	50,201.01	17,675.36	5,320.00	15,789.87	243,120.54
American, N. J.....	229,776.10	65,213.90	72,440.03	41,743.57	16,039.80	36,007.78	461,221.18
American Fire, N. Y.....	260,896.91	40,000.00	119,641.52	50,674.94	4,641.94	59,050.84	534,906.15
American Fire, Pa.....	986,093.27	49,730.00	282,237.70	201,685.47	38,422.04	9,641.67	1,567,810.15
American Central.....	323,855.97	33,000.00	74,291.44	49,471.01	10,501.45	63,581.23	554,651.10
Anglo-Nevada.....	586,081.96	.....	221,388.62	54,789.38	10,660.71	104,567.46	977,488.13
Boatman's F. & M.....	149,152.36	.....	36,371.37	12,144.25	5,907.13	11,053.25	214,628.36
Boston Marine.....	680,809.03	100,000.00	22,986.82	38,521.72	12,731.98	80,120.57	985,170.12
Boylston.....	168,377.71	35,135.30	49,485.20	30,400.00	2,191.54	28,765.11	314,354.86
Buffalo German.....	214,190.11	40,000.00	78,961.65	20,609.98	7,032.52	23,938.40	386,752.66
Burlington.....	52,065.07	65,000.00	38,301.69	21,556.01	4,906.03	13,137.83	196,766.63
California.....	315,832.30	72,000.00	120,046.49	43,900.36	13,447.00	59,015.19	626,241.34
Citizens, N. Y.....	395,476.13	29,956.20	122,275.65	43,818.18	15,830.85	90,751.13	698,108.14
Citizens, Pa.....	157,134.34	.....	54,577.32	10,912.18	9,130.40	24,938.90	256,693.14
Commerce.....	82,346.58	20,000.00	20,175.89	11,632.80	3,909.84	6,856.84	143,921.65
Commercial.....	294,328.40	24,000.00	85,649.70	34,299.62	8,041.49	30,291.04	435,610.25
Commonwealth.....	82,557.37	.....	14,412.93	26,453.06	4,664.40	19,823.08	147,915.84
Concordia Fire.....	228,630.05	14,000.00	93,966.24	22,180.00	8,472.34	34,170.05	401,413.68
Connecticut Fire.....	602,957.42	80,000.00	159,863.25	83,001.08	23,601.53	74,804.78	1,024,228.06
Continental.....	1,245,697.41	128,564.22	427,351.56	278,861.11	30,334.97	174,513.32	2,305,322.59
Detroit F. & M.....	121,627.55	35,000.00	29,443.91	16,792.47	10,527.17	15,689.85	229,085.95
Eagle Fire.....	51,619.85	29,793.00	21,077.69	30,595.10	8,151.93	14,597.32	155,834.89

Empire State.....	13,767.07	12,485.54	3,638.86	1,806.36	9,680.26	41,378.09
Enterprise F. & M.....	44,638.64	11,560.00	8,077.21	3,949.87	14,733.13	82,958.85
Equitable F. & M.....	142,288.50	41,238.31	34,482.19	8,139.50	247,390.50	247,390.50
Exchange Fire.....	307,473.21	73,308.20	92,337.35	4,091.96	12,871.06	434,077.43
Farmers Fire.....	188,710.94	60,249.08	20,950.76	6,494.44	20,024.12	296,429.34
Farragut Fire.....	101,867.09	20,000.00	23,458.33	3,063.64	17,308.36	192,422.65
Fremens, N. J.....	174,547.34	72,000.00	19,834.01	11,089.29	20,224.88	347,066.75
Fremens, Ohio.....	138,545.86	7,500.00	13,889.76	5,862.21	16,109.96	214,677.53
Fire Association, N. J.....	113,415.47	18,000.00	18,931.79	3,686.02	36,786.73	190,820.01
Fire Association, Pa.....	1,119,220.01	200,000.00	117,023.67	56,024.99	21,728.33	1,891,035.48
Franklin.....	102,491.43	14,000.00	12,388.09	4,976.09	11,690.65	178,121.26
Franklin Fire.....	266,211.84	90,035.00	82,343.81	23,808.70	72,501.15	590,026.39
Fremens Fund.....	611,921.45	120,000.00	104,577.37	16,107.21	112,758.24	1,112,926.25
Fire Insurance Co. of the County of Philadelphia.....	99,206.39	23,946.00	7,549.96	5,560.94	10,829.17	181,110.38
German, Ill.....	687,696.56	40,000.00	108,784.18	20,343.97	17,196.28	1,231,344.25
German Fire, Ill.....	133,654.91	24,000.00	23,226.96	4,211.41	.....	237,545.80
German Fire, Pa.....	148,739.58	20,000.00	41,222.16	6,903.31	299.33	238,394.45
Germania Fire.....	632,584.79	100,000.00	171,526.86	24,350.64	178,082.14	1,186,302.90
German American.....	1,476,852.75	200,000.00	185,594.06	59,749.57	252,453.96	2,553,617.52
German Savings.....	16,993.68	.....	2,009.00	3,962.90	1,506.01	25,903.27
Girard F. and M.....	166,093.59	75,000.00	46,440.25	11,486.01	24,940.15	396,270.75
Glens Falls.....	284,665.55	20,000.00	98,449.12	11,243.28	38,238.07	432,504.51
Grand Rapids Fire.....	54,518.73	10,000.00	6,015.00	2,178.97	3,382.50	99,249.12
Greenwich.....	586,941.77	20,000.00	56,001.52	8,833.32	43,194.24	937,973.17
Guardian Fire.....	57,983.57	.....	9,503.94	848.27	8,123.95	82,963.84
Hanover Fire.....	736,369.85	100,000.00	233,567.47	26,358.95	108,444.51	1,347,561.24
Harford Fire.....	1,338,503.56	250,000.00	185,149.37	52,193.49	194,254.62	2,430,646.79
Herkla Fire.....	74,081.49	.....	18,573.26	3,277.62	.....	120,858.54
Hibernia.....	194,931.18	531.00	11,530.00	24,379.32	6,468.19	242,117.69
Home.....	2,368,790.10	299,800.00	374,732.68	64,272.18	275,432.35	4,173,620.32
Insurance Company of North America.....	2,222,047.99	450,000.00	132,667.62	101,224.54	280,928.78	3,747,615.74
Insurance Company of the State of Pennsylvania.....	187,819.32	60,026.24	16,666.29	10,009.45	39,804.12	339,895.42
Jersey City.....	37,828.29	15,750.00	12,050.68	3,246.45	8,732.92	99,586.33
Liberty.....	287,188.37	.....	53,232.95	8,421.95	74,076.99	542,809.73
Long Island.....	115,350.43	9,000.00	16,669.47	1,240.51	27,283.38	227,461.40
Manufacturers and Builders Fire.....	127,161.75	13,033.00	22,632.49	4,175.30	20,639.71	238,481.87
Marine.....	21,823.44	5,987.00	7,250.00	4,278.87	4,296.87	50,761.54
Mechanics.....	79,626.97	19,397.00	6,038.26	7,244.65	15,828.06	152,149.03
Mercantile, Ohio.....	107,370.99	10,000.00	12,672.46	5,756.63	8,347.43	161,983.36
Mercantile F. & M., Mass.....	108,096.48	32,395.00	33,601.17	5,110.69	11,301.81	202,653.15

TABLE E.—CONTINUED.

NAMES OF COMPANIES.	Losses.	Dividends.	Commission and Brokerage.	Salaries of Officers and Employees.	Taxes.	All Other Expenditures.	Total Expenditures.
Merchants, R. I.....	\$147, 169.66	\$14, 000.00	\$40, 075.71	\$29, 602.14	\$6, 337.02	.....	\$237, 184.53
Merchants, N. J.....	366, 008.99	40, 208.04	169, 110.68	29, 269.15	14, 927.64	.....	682, 903.63
Michigan F. & M.....	130, 414.88	.....	57, 384.38	9, 463.39	7, 543.87	\$70, 379.13	233, 436.38
Milwaukee Mechanics.....	254, 054.19	49, 935.00	109, 062.50	42, 964.17	15, 150.76	32, 217.21	503, 383.83
Mutual Fire.....	423, 433.81	117, 723.66	.....	61, 955.78	.....	42, 708.63	645, 821.88
National Fire, Conn.....	595, 979.52	100, 000.00	241, 444.76	85, 312.49	18, 727.48	151, 265.52	1, 172, 729.77
National Fire, N. Y.....	127, 890.31	16, 000.00	53, 701.27	14, 846.06	2, 506.15	14, 503.13	229, 246.92
Newark Fire.....	102, 522.82	24, 680.40	38, 419.62	14, 830.45	6, 940.46	10, 397.68	197, 331.43
New Hampshire Fire.....	353, 125.04	40, 000.00	135, 039.75	36, 362.81	18, 862.76	33, 367.65	616, 438.01
New York Bowery Fire.....	265, 620.78	30, 000.00	192, 203.77	38, 240.04	7, 061.66	37, 097.28	481, 223.53
New York Fire.....	105, 040.45	.....	37, 391.66	19, 571.83	2, 021.63	8, 641.19	172, 666.76
Niagara Fire.....	1, 044, 723.03	50, 130.00	310, 735.20	126, 450.00	45, 548.72	183, 777.35	1, 761, 364.30
North American.....	82, 521.46	13, 936.00	30, 151.03	12, 916.53	5, 215.12	9, 461.93	154, 202.97
Northwestern National.....	289, 694.61	48, 000.00	67, 203.43	55, 308.49	13, 323.10	39, 578.34	493, 107.97
Ohio Farmers.....	414, 726.52	.....	101, 854.88	23, 650.00	20, 186.73	33, 266.89	593, 695.02
Orient.....	433, 682.98	60, 000.00	134, 684.87	50, 974.94	17, 824.21	63, 214.68	760, 381.68
Park Fire.....	47, 373.57	.....	8, 834.27	7, 325.15	254.04	7, 350.04	71, 137.07
Packers and Provision Dealers.....	31, 083.79	.....	11, 975.51	.....	3, 694.47	.....	47, 302.38
Pacific Fire.....	146, 213.62	24, 000.00	53, 748.99	27, 597.40	5, 754.13	12, 663.37	269, 977.51
Pennsylvania Fire.....	607, 734.05	40, 000.00	240, 977.53	36, 670.68	27, 583.60	49, 607.88	1, 002, 573.74
Peoples.....	144, 756.31	6, 000.00	35, 555.64	8, 962.00	5, 764.95	8, 816.98	210, 865.88
Peoples Fire, N. H.....	243, 186.57	.....	91, 605.54	14, 442.85	6, 486.32	24, 559.40	385, 280.68
Peoples Fire, N. Y.....	96, 258.15	16, 000.00	30, 707.65	11, 257.39	1, 172.51	9, 753.98	165, 149.68
Phoenix.....	2, 415, 284.22	.....	673, 632.28	286, 347.94	59, 715.62	330, 367.25	3, 767, 297.31
Phoenix.....	1, 301, 460.06	280, 000.00	386, 343.23	105, 124.69	67, 672.95	195, 756.88	2, 338, 357.81
Providence, Washington.....	572, 244.12	32, 000.00	174, 730.30	32, 206.46	21, 303.76	94, 618.99	927, 103.63
Reliance.....	91, 544.11	24, 000.00	29, 428.20	11, 407.00	4, 327.23	8, 734.73	169, 462.27
Rochester German.....	216, 343.59	16, 000.00	83, 454.45	19, 266.17	13, 076.62	23, 922.46	372, 063.69
Rockford.....	137, 348.87	36, 000.00	103, 724.05	38, 601.07	2, 356.55	22, 147.45	340, 178.39
Rutgers Fire.....	46, 047.61	20, 000.00	15, 555.70	14, 649.93	3, 767.19	6, 612.92	105, 633.35



St. Paul F. & M.....	606,447.46	50,000.00	203,609.67	47,734.97	18,845.22	46,299.46	972,936.78
Security.....	363,951.54	17,500.00	132,006.67	39,564.00	5,025.76	.....	558,047.97
Springfield F. & M.....	936,076.08	125,000.00	259,408.38	70,184.25	42,432.96	150,059.80	1,583,161.47
Spring Garden.....	163,652.31	64,000.00	49,066.42	20,974.20	8,949.82	9,547.35	316,190.10
Standard Fire.....	48,783.84	14,000.00	10,477.73	13,757.50	2,336.37	5,770.76	95,126.20
State.....	186,451.69	12,000.00	59,431.25	63,157.93	7,815.98	21,611.95	350,468.80
Sun.....	158,173.29	30,000.00	44,341.62	26,359.43	2,813.38	20,589.01	282,318.73
Sun Mutual.....	322,384.62	48,935.00	.....	57,407.65	11,166.48	2,000.00	441,893.75
Syndicate.....	47,656.88	7,500.00	16,633.57	9,337.71	2,160.29	9,701.47	92,389.92
Teutonia Fire.....	8,933.71	8,000.00	3,960.74	4,328.00	1,209.26	2,484.49	28,916.20
Traders.....	374,447.02	50,000.00	104,659.82	40,755.66	16,932.95	22,743.02	609,538.47
Union, Pa.....	341,635.51	174.64	65,336.57	38,088.46	13,789.17	43,606.69	502,631.04
Union, Cal.....	383,251.59	30,000.00	169,181.22	42,340.92	15,604.03	39,439.14	679,816.90
United Firemens.....	103,271.23	18,000.00	42,545.91	14,875.16	6,299.43	12,557.27	197,549.00
United States Fire.....	61,113.24	27,527.50	47,093.09	18,276.25	5,173.67	19,775.80	178,959.55
Westchester Fire.....	532,777.27	30,000.00	176,997.61	36,407.99	20,127.59	106,548.30	902,858.76
Western.....	136,428.20	.....	27,716.34	8,235.00	6,418.85	6,220.39	185,018.78
Western Home.....	54,819.47	20,000.00	28,961.32	12,673.41	1,562.04	16,478.10	134,494.34
Williamsburg City Fire.....	245,672.25	50,015.00	133,068.77	60,553.60	6,165.77	38,622.71	533,998.10
Total American.....	\$41,245,663.92	\$5,695,737.46	\$12,756,824.05	\$5,381,483.58	\$1,595,916.85	\$5,420,050.44	\$72,095,681.30

TABLE E.—CONTINUED.  
*Foreign Companies — United States Branches.*

NAMES OF COMPANIES.	Losses.	Dividends.	Commission and Brokerage.	Salaries of Officers and Employees.	Taxes.	All Other Expenditures.	Total Expenditures.
British America.....	\$423,223.13	.....	\$105,552.35	\$12,333.03	\$15,091.30	\$24,321.90	\$580,521.71
British and Foreign Marine .....	240,721.86	.....	89,968.51	43,764.70	17,655.05	548,379.24	940,489.36
City of London Fire.....	334,595.49	.....	102,781.50	41,588.85	19,882.36	37,137.82	535,746.02
Commercial Union.....	1,402,519.92	.....	428,518.00	129,633.40	47,044.06	128,433.33	2,136,648.71
Guardian Fire.....	422,486.87	.....	166,239.14	84,188.40	19,956.35	83,919.78	776,790.04
Hamburg Bremen.....	615,760.09	.....	171,044.36	77,119.33	21,654.25	52,904.56	938,482.59
Imperial Fire.....	617,167.17	.....	185,882.33	107,580.59	37,314.09	28,495.13	976,389.31
Lancashire.....	897,893.27	.....	254,720.91	165,199.24	31,870.30	.....	1,349,183.72
Lion Fire.....	274,313.26	.....	74,448.99	31,974.51	10,566.69	22,116.86	413,420.31
Liverpool and London and Globe .....	2,348,571.35	.....	708,818.98	213,525.14	78,495.97	199,957.71	3,554,369.15
London Assurance Corporation.....	511,343.46	.....	165,039.02	54,604.96	20,363.11	52,623.66	803,974.21
London and Lancashire .....	680,326.51	.....	322,484.15	55,360.64	26,637.46	95,820.64	1,180,629.40
Mannheim .....	100,809.22	.....	24,874.47	.....	4,090.25	7,812.92	137,586.86
Marine .....	107,517.53	.....	30,537.34	11,471.68	5,159.58	.....	154,686.13
Northern Assurance Company .....	622,030.42	.....	167,812.88	72,034.98	25,394.69	91,433.31	978,766.28
North British and Mercantile.....	1,214,754.70	.....	322,847.77	195,415.77	47,687.72	64,970.00	1,845,675.96
Norwich Union.....	566,972.23	.....	167,409.55	70,123.99	11,733.55	68,552.01	884,771.33
Phoenix Assurance.....	947,598.25	.....	276,880.01	66,344.89	43,612.23	81,788.88	1,416,194.26
Queen.....	861,891.65	.....	212,248.95	92,496.01	47,103.94	81,992.13	1,295,732.68
Royal.....	1,572,294.04	.....	511,183.43	161,309.76	69,698.34	223,492.49	2,527,978.06
Scottish Union and National.....	253,784.27	.....	77,953.46	28,285.00	14,851.58	20,776.89	395,651.20
Sea.....	69,319.24	.....	12,366.21	3,715.52	3,486.02	.....	88,886.99
Sun Fire Office.....	647,089.08	.....	183,242.84	60,150.61	21,448.23	98,837.26	1,012,768.02
Transatlantic.....	142,221.56	.....	46,184.28	18,335.23	5,592.13	16,712.37	227,045.57
Union Marine.....	86,716.01	.....	30,685.32	4,075.00	7,822.18	171,797.14	300,595.65
Western.....	795,488.78	.....	224,874.16	25,625.00	26,610.50	81,924.01	1,154,522.45
Total Foreign.....	\$16,756,909.36	.....	\$5,065,598.31	\$1,831,106.23	\$668,621.43	\$2,284,270.04	\$26,607,505.97

TABLE F.

*Showing the Risks Written and Premiums Received in 1888 by the Fire and Marine Insurance Companies Operating in Minnesota.*

COMPANIES.	FIRE.		MARINE AND INLAND.		Total Risks in Force Dec. 31, 1888.
	Risks Written in 1888.	Premiums Thereon.	Risks Written in 1888.	Premiums Thereon.	
Ætna.....	\$227,848,439	\$2,703,180.38	\$97,925,055	\$172,121.04	\$310,177,580
Agricultural.....	92,424,994	847,285.73			234,345,737
Amazon.....	19,234,640	267,214.64			20,601,958
American.....	23,935,010	231,984.84	2,084,028	39,162.63	23,720,381
American, Mass.....	63,769,982	566,106.87			79,686,177
American, N. J.....					
American Fire, N. Y.....	101,443,298	614,719.05			85,933,187
American Fire, Pa.....	144,221,155	1,727,829.77			154,076,768
American Central.....	50,575,759	630,051.69			60,045,430
Anglo-Nevada.....	75,152,714	1,306,170.51	18,037,904	127,483.60	64,857,604
Boatmen F. & M.....	15,519,018	206,005.65	1,025,110	6,743.10	13,444,240
Boston Marine.....			84,121,490	1,277,909.06	10,925,728
Boylston.....	29,277,000	302,953.05	5,707,601	39,754.06	31,643,563
Buffalo German.....	45,859,551	491,738.87			56,896,768
Burlington.....	10,922,765	165,799.77			18,719,181
California.....	42,599,880	590,036.24	14,706,843	300,876.61	42,851,790
Citizens, N. Y.....	89,345,141	738,698.36			103,729,454
Citizens, Pa.....	16,137,886	290,971.66			28,729,984
Commerce.....	12,544,958	130,218.85			13,780,407
Commercial.....	30,713,144	473,647.38	2,209,181	29,410.13	23,501,883
Commonwealth.....	27,291,638	242,423.58			19,422,777
Concordia Fire.....	36,792,856	461,827.71			44,748,778
Connecticut Fire.....	101,112,207	1,247,388.41			109,120,083
Continental.....	276,625,151	5,447,680.81			534,416,890
Detroit F. & M.....	18,021,724	209,392.88	3,101,454	63,689.07	20,789,173
Eagle Fire.....	28,681,023	132,801.34			35,159,955





Insurance Company of North America.....	277,314,149	2,629,480.05	255,111,734	1,675,116.35	373,747,128
Insurance Company of the State of Pennsylvania.....	38,466,933	365,293.46	.....	.....	32,897,074
Jersey City.....	10,647,462	105,815.30	.....	.....	16,097,253
Liberty.....	91,479,692	813,762.03	.....	.....	67,420,378
Long Island.....	38,262,774	269,435.39	.....	.....	37,465,514
Manufacturers and Builders Fire.....	31,901,282	233,297.82	.....	.....	35,165,708
Marine.....	4,583,556	49,680.86	.....	13,200.63	4,218,427
Mechanics.....	15,281,715	158,436.80	.....	.....	14,524,426
Mercantile, Ohio.....	11,337,821	122,236.12	.....	59,396.18	11,537,484
Mercantile F. & M., Mass.....	13,712,441	152,810.77	.....	54,639.28	17,239,407
Merchants, R. L.....	22,444,160	250,213.00	.....	.....	23,443,705
Merchants, N. J.....	108,892,051	941,333.64	.....	.....	105,828,283
Michigan F. & M.....	24,180,524	352,298.49	.....	.....	23,343,065
Milwaukee Mechanics.....	40,969,906	546,330.75	.....	.....	61,257,597
Mutual Fire.....	70,409,763	861,138.62	.....	.....	56,771,021
National Fire, Conn.....	152,549,546	1,641,982.14	.....	.....	110,258,971
National Fire, N. Y.....	28,431,862	270,813.86	.....	.....	26,264,125
Newark Fire.....	24,574,852	200,024.29	.....	.....	27,414,671
New Hampshire Fire.....	69,480,389	812,322.30	.....	.....	73,200,973
New York Bowery Fire.....	69,887,777	510,618.43	.....	.....	81,299,274
New York Fire.....	20,887,048	184,998.59	.....	.....	18,816,528
Niagara Fire.....	272,382,596	2,199,821.30	.....	14,511.06	286,567,948
North American.....	21,274,488	208,838.55	.....	543,016	19,523,318
Northwestern National.....	49,421,386	550,077.20	.....	2,453,156	74,329,833
Ohio Farmers.....	68,608,613	618,848.84	.....	.....	236,614,795
Orient.....	71,225,345	931,281.97	.....	.....	76,574,923
Park Fire.....	8,813,639	46,578.92	.....	.....	8,165,772
Packers and Provision Dealers.....	5,215,639	59,919.58	.....	.....	4,338,550
Pacific Fire.....	33,994,866	283,474.78	.....	.....	40,074,620
Pennsylvania Fire.....	94,323,936	1,178,952.81	.....	.....	115,074,970
Peoples.....	17,263,943	237,415.02	.....	.....	14,201,288
Peoples Fire, N. H.....	36,935,697	510,576.92	.....	.....	32,983,120
Peoples Fire, N. Y.....	16,860,082	140,390.62	.....	11,968.14	17,918,871
Phenix.....	321,243,176	3,812,416.17	.....	593,861	481,464,893
Phenix.....	207,212,298	2,638,652.78	.....	933,675	270,625,744
Providence, Washington.....	67,657,656	788,351.50	.....	458,279.69	76,160,392
Reliance.....	19,249,556	184,885.70	.....	.....	16,497,773
Rochester German.....	41,522,356	469,557.34	.....	.....	49,840,519
Rockford.....	34,626,274	441,183.40	.....	.....	37,733,637
Rulgers.....	11,362,706	87,719.39	.....	.....	11,849,920

TABLE F.—CONTINUED.

COMPANIES.	FIRE.		MARINE AND INLAND.		Total Risks in Force Dec. 31, 1888.
	Risks Written in 1888.	Premiums Thereon.	Risks Written in 1888.	Premiums Thereon.	
St. Paul F. & M.	\$64,829,929	\$1,012,087.48	\$46,031,295	\$294,791.04	\$102,629,133
Security	43,543,293	518,571.30	21,118,448	141,850.73	35,151,762
Springfield F. & M.	127,455,905	1,894,069.50			175,278,437
Spring Garden	28,079,288	316,673.01			26,042,829
Standard Fire	9,887,687	75,281.23			10,181,139
State	16,731,772	267,708.36			14,068,195
Sun	19,154,644	231,610.55	4,738,022	159,719.97	16,860,816
Sun Mutual	35,598,753	436,025.00	16,613,078	91,841.00	21,229,241
Syndicate	6,508,297	117,444.06			5,311,704
Teutonia Fire	3,385,516	27,481.21			3,465,140
Traders	49,021,370	676,211.69	39,950	240.40	46,126,530
Union, Pa.	30,903,432	365,167.53	106,332,369	455,804.41	32,641,872
Union, Cal.	54,256,418	727,287.66	15,780,522	238,645.48	46,377,421
United Firemen	26,396,347	292,328.14			45,067,504
United States Fire	22,892,779	174,923.25	1,770,364	51,574.77	23,758,338
Westchester Fire	134,711,056	1,322,302.45			149,966,021
Western	15,576,656	186,334.83	174,000	2,068.88	15,566,723
Western Home	7,817,370	151,805.02	124,930	792.56	10,891,524
Williamsburg City Fire	83,227,228	659,805.55			99,968,178
Total American	\$7,454,547,064	\$77,940,789.36	\$915,329,458	\$6,542,871.80	\$9,428,454,535

TABLE F.—CONTINUED.  
Foreign Companies—United States Branches.

COMPANIES.	FIRE.		MARINE AND INLAND.		Total Risks in Force Dec. 31, 1888.
	Risks Written in 1888.	Premiums Thereon.	Risks Written in 1888.	Premiums Thereon.	
British America.....	\$50,082,419	\$623,099.89	\$14,889,461	\$74,471.16	\$59,821,100
British and Foreign Marine.....	53,274,841	674,344.71			191,846,528
City of London Fire.....	253,690,397	2,583,831.43			49,964,698
Commercial Union.....	109,075,279	947,683.15	38,793,910	286,241.32	304,396,561
Guardian Fire.....					128,711,101
Hamburg Bremen.....	104,815,555	1,159,461.80			106,058,338
Imperial Fire.....	109,120,892	1,241,914.56			117,088,388
Lancashire.....	164,618,051	1,590,805.25			167,016,325
Lion Fire.....	58,127,588	722,800.58			37,313,019
Liverpool and London and Globe.....	526,848,540	4,910,789.61			600,900,389
London Assurance.....	121,138,858	979,157.74			132,721,126
London and Lancashire.....	225,678,936	1,897,367.82			196,878,244
Manheim.....			51,405,689	227,760.82	920,444
Marine.....			107,632,790	454,431.80	3,092,792
Northern.....	122,281,883	1,166,955.11			126,469,282
North British and Mercantile.....	255,524,616	2,449,186.40			251,914,922
Norwich Union.....	130,374,106	1,207,784.48			128,927,866
Phoenix.....	224,962,627	1,856,102.82			223,933,565
Queen.....	169,156,969	1,801,820.44			200,825,559
Royal.....	439,093,584	3,698,763.58			459,484,143
Scottish Union and National.....	84,079,763	912,658.37			56,126,378
Sea.....			48,679,422	278,267.92	4,758,574
Sun Fire Office.....	128,177,333	1,370,349.00			183,537,947
Transatlantic.....	24,605,546	256,076.18			24,367,200
Union Marine.....			47,868,874	386,263.29	1,959,567
Western.....	72,232,651	988,998.71	58,063,521	509,064.30	70,855,403
Total Foreign.....	\$3,417,206,454	\$83,039,951.13	\$867,353,667	\$2,217,500.61	\$3,829,864,458

# ABSTRACT OF STATEMENTS.

## ÆTNA INSURANCE COMPANY.

Principal Office.....Hartford, Conn.

(Organized in 1819.)

JOTHAM GOODNOW, *President*.

A. C. BAYNE, *Secretary*.

Attorney to accept service in Minnesota, E. E. HUGHSON, St. Paul.

CASH CAPITAL, \$4,000,000.

### I. ASSETS.

Value of real estate owned.....	\$365,000 00
Loans secured by mortgages on real estate .....	44,085 29
Market value of bonds and stocks.....	8,011,751 50
Loans secured by bonds and stocks as collateral.....	7,770 00
Cash on hand and in bank.....	978,670 57
Premiums in course of collection.....	372,910 42
All other assets .....	563 85
Total admitted assets .....	\$9,780,751 63

### II. LIABILITIES.

Capital stock paid up .....	\$4,000,000 00
Reserved for reinsurance.....	1,921,749 11
Unpaid losses.....	187,678 43
Other liabilities.....	64,809 15
Total liabilities, including capital.....	\$6,174,236 69
Net surplus.....	\$3,606,514 94

### III. INCOME IN 1888.

From premiums received .....	\$2,608,851 69
From interests and dividends.....	418,329 27
From rents and all other sources .....	9,992 94
Total income.....	\$3,037,173 90
Excess of income over expenditures.....	\$71,514 81

### IV. EXPENDITURES IN 1888.

Losses paid.....	\$1,415,726 07
Dividends.....	720,000 00
Commissions and brokerage.....	396,240 73
Salaries of officers and employees.....	168,112 40
Taxes.....	50,270 31
All other expenditures.....	215,309 58
Total expenditures.....	\$2,965,659 09



## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$227,848,439 00
Premiums received thereon .....	2,703,180 38
Marine and inland risks written in 1888.....	97,925,065 00
Premiums received thereon.....	172,121 04
Total risks in force Dec. 31, 1888.....	\$310,177,580 00
Total premiums received from commencement to date.....	\$106,900,883 88
Total losses paid from commencement to date.....	63,046,482 85
Excess of premiums over losses .....	\$43,854,401 03

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$3,384,496 00
Premiums received.....	58,274 04

*Inland.*

Risks written .....	\$413,150 00
Premiums received.....	1,463 34

*Losses Paid.*

Fire \$21,288.71; inland, \$82.83. Total.....	\$21,371 54
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*Losses Incurred.*

Fire, \$21,813.71; inland, \$82.83. Total.....	\$21,896 54
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## AGRICULTURAL INSURANCE COMPANY.

Principal Office.....Watertown, N. Y

(Organized in 1863.)

J. R. STEBBINS, *President.*

H. M. STEVENS, *Secretary.*

Attorney to accept service in Minnesota, A. R. MCGILL, St. Paul.

CASH CAPITAL, \$500,000.

## I. ASSETS.

Value of real estate owned.....	\$173,661 10
Loans secured by mortgages on real estate.....	1,165,439 34
Market value of bonds and stocks.....	362,090 00
Loans secured by bonds and stocks as collateral.....	51,450 00
Cash on hand and in bank .....	183,352 43
Premiums in course of collection .....	50,814 44
All other assets .....	3,393 30
Total admitted assets.....	\$1,990,200 61

## ASSETS NOT ADMITTED.

Bills receivable for fire premiums.....	\$16,218 15
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## ANNUAL REPORT

## II. LIABILITIES.

Capital stock paid up.....	\$500,000 00
Reserved for reinsurance.....	1,155,918 14
Unpaid losses.....	48,279 22
Other liabilities.....	30 00
Total liabilities, including capital.....	<u>\$1,704,227 36</u>
Net surplus .....	\$285,973 25

## III. INCOME IN 1888.

From premiums received.....	\$775,842 21
From interests and dividends.....	92,320 94
From rents and all other sources.....	2,841 66
Total income.....	<u>\$871,004 81</u>
Excess of income over expenditures .....	\$90,767 38

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$384,790 85
Dividends.....	50,100 00
Commissions and brokerage.....	186,483 45
Salaries of officers and employes.....	91,350 46
Taxes.....	16,221 79
All other expenditures .....	51,290 88
Total expenditures.....	<u>\$780,237 43</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$92,424,094 00
Premiums received thereon.....	847,285 73
Total risks in force Dec. 31, 1888.....	<u>\$234,345,737 00</u>
Total premiums received from commencement to date .....	\$12,642,192 17
Total losses paid from commencement to date .....	5,981,602 02
Excess of premiums over losses.....	<u>\$6,660,590 15</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,002,059 00
Premiums received.....	10,782 24

*Losses Paid.*

Fire.....	\$1,541 99
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*Losses Incurred.*

Fire.....	\$1,417 40
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## AMAZON INSURANCE COMPANY.

Principal Office.....Cincinnati, Ohio.

(Organized in 1871.)

GAZZAM GANO, *President.*J. H. BEATTIE, *Secretary.*

Attorney to accept service in Minnesota, CHAS. SHANDREW, St. Paul.

CASH CAPITAL, \$300,000.

## I. ASSETS.

Value of real estate owned.....	\$90,150 00
Loans secured by mortgages on real estate.....	29,399 36
Market value of bonds and stocks.....	189,756 50
Loans secured by bonds and stocks as collateral.....	175,212 50
Cash on hand and in bank.....	13,350
Premiums in course of collection.....	33,500 3
All other assets.....	2,148 90
Total admitted assets.....	<u>\$335,517 63</u>
Assets not admitted, bills receivable for fire premiums.....	\$1,431 78

## II. LIABILITIES.

Capital stock paid up .....	\$300,000 00
Reserved for reinsurance.....	148,440 85
Unpaid losses.....	19,481 79
Other liabilities.....	1,239 00
Total liabilities, including capital.....	<u>\$469,161 64</u>
Net surplus.....	\$66,355 99

## III. INCOME IN 1888.

From premiums received.....	\$213,281 78
From interests and dividends.....	18,426 47
From rents and all other sources.....	1,835 90
Total income.....	<u>\$233,544 15</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$148,517 59
Dividends.....	17,520 90
Commissions and brokerage.....	47,315 33
Salaries of officers and employes.....	18,183 01
Taxes.....	5,253 95
All other expenditures.....	18,271 39
Total expenditures.....	<u>\$255,062 17</u>
Excess of expenditures over income.....	\$21,518 02

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$19,234,640 00
Premiums received thereon.....	267,214 64
Total risks in force Dec. 31, 1888.....	<u>\$20,601,958 00</u>
Total premiums received from commencement to date.....	\$6,412,337 13
Total losses paid from commencement to date.....	3,743,520 31
Excess of premiums over losses.....	<u>\$2,668,816 82</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written .....	\$957,332 00
Premiums received.....	15,158 60

*Losses Paid.*

Fire.....	\$7,345 75
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*Losses Incurred.*

Fire.....	\$6,535 75
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## AMERICAN INSURANCE COMPANY.

Principal Office.....Boston, Mass.

(Organized in 1818.)

FRANCIS PEABODY, *President.*

J. W. FIELD, *Secretary.*

Attorney to accept service in Minnesota, J. J. WATSON, St. Paul.

CASH CAPITAL, \$300,000.

## I. ASSETS.

Market value of bonds and stocks.....	\$484,439 62
Loans secured by bonds and stocks as collateral.....	49,306 25
Cash on hand and in bank.....	53,739 73
Premiums in course of collection.....	11,414 66
All other assets.....	25,375 40
Total admitted assets.....	\$624,275 66

## II. LIABILITIES.

Capital stock paid up.....	\$300,000 00
Reserved for reinsurance.....	161,087 46
Unpaid losses.....	27,035 41
Other liabilities.....	7,165 23
Total liabilities, including capital.....	\$495,288 10
Net surplus.....	\$128,987 56

## III. INCOME IN 1888.

From premiums received .....	\$245,778 85
From interests and dividends.....	25,721 30
From rents and all other sources.....	6,258 26
Total income.....	\$277,758 41
Excess of income over expenditures.....	\$34,637 87



## IV. EXPENDITURES IN 1888.

Losses paid.....	\$144,812 30
Dividends.....	9,322 00
Commissions and brokerage.....	50,201 01
Salaries of officers and employes.....	17,675 36
Taxes.....	5,320 00
All other expenditures.....	15,789 87
Total expenditures.....	\$243,120 54

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$23,935,010 00
Premiums received thereon.....	231,984 84
Marine and inland risks written in 1888.....	2,054,028 00
Premiums received thereon.....	39,162 63
Total risks in force Dec. 31, 1888.....	\$23,720,381 00
Total premiums received from commencement to date.....	\$9,630,000 00
Total losses paid from commencement to date.....	6,712,503 00
Excess of premiums over losses.....	\$2,917,497 00

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$557,652 00
Premiums received .....	5,368 69

*Losses Paid.*

Fire.....	\$3,277 97
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*Losses Incurred.*

Fire.....	\$3,527 97
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## AMERICAN INSURANCE COMPANY.

Principal Office.....Newark, N. J

(Organized in 1846.)

F. H. HARRIS, *President.*

J. H. WORDEN, *Secretary.*

Attorney to accept service in Minnesota, J. S. PRINCE, St. Paul.

CASH CAPITAL, \$600,000.

## I. ASSETS.

Value of real estate owned.....	\$367,022 96
Loans secured by mortgages on real estate.....	1,119,802 90
Market value of bonds and stocks.....	381,000 00
Loans secured by bonds and stocks as collateral.....	17,200 00
Cash on hand and in bank.....	49,820 15
Premiums in course of collection.....	22,962 81
All other assets.....	7,244 01
Total admitted assets.....	\$1,965,052 83

## ASSETS NOT ADMITTED.

Company's own stock.....	\$70,000 00
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## II. LIABILITIES.

Capital stock paid up.....	\$600,000 00
Reserved for reinsurance.....	357,808 10
Unpaid losses.....	37,125 25
Other liabilities.....	13,885 21
Total liabilities, including capital.....	\$1,008,818 56
Net surplus.....	\$956,234 27

## III. INCOME IN 1888.

From premiums received.....	\$421,946 57
From interests and dividends.....	78,890 55
From rents and all other sources.....	7,172 06
Total income.....	\$508,009 18
Excess of income over expenditures.....	\$46,788 00

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$229,776 10
Dividends.....	65,213 90
Commissions and brokerage.....	72,440 03
Salaries of officers and employes.....	41,743 57
Taxes.....	16,039 80
All other expenditures.....	36,007 78
Total expenditures.....	\$461,221 18

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$63,769,682 00
Premiums received thereon.....	509,106 87
Total risks in force Dec. 31, 1888.....	\$79,686,177 00
Total premiums received from commencement to date.....	\$5,825,086 22
Total losses paid from commencement to date.....	2,045,869 00
Excess of premiums over losses.....	\$3,779,217 22

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$768,395 00
Premiums received.....	9,179 75

*Losses Paid.*

Fire.....	\$7,943 11
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*Losses Incurred.*

Fire.....	\$8,146 95
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## AMERICAN FIRE INSURANCE COMPANY.

Principal Office.....New York City.

(Organized in 1857.)

DAVID ADEE, *President.*W. H. CROLIUS, *Secretary.*

Attorney to accept service in Minnesota, THOS. COCHRAN, JR., St. Paul.

CASH CAPITAL, \$400,000.

## I. ASSETS.

Loans secured by mortgages on real estate.....	\$55,915 53
Market value of bonds and stocks.....	1,005,000 00
Loans secured by bonds and stocks as collateral.....	153,250 00
Cash on hand and in bank.....	30,224 74
Premiums in course of collection.....	62,840 14
All other assets.....	1,283 91
Total admitted assets.....	\$1,308,514 32

## II. LIABILITIES.

Capital stock paid up.....	\$400,000 00
Reserved for reinsurance.....	311,034 00
Unpaid losses.....	32,378 31
Other liabilities.....	16,764 10
Total liabilities, including capital.....	\$760,176 41
Net surplus.....	\$548,337 91

## III. INCOME IN 1888.

From premiums received.....	\$491,205 78
From interests and dividends.....	47,711 17
From rents and all other sources.....	825 70
Total income.....	\$539,742 65
Excess of income over expenditures.....	\$4,836 50

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$260,896 91
Dividends.....	40,000 00
Commissions and brokerage.....	119,641 52
Salaries of officers and employes.....	50,674 94
Taxes.....	4,641 94
All other expenditures.....	59,050 84
Total expenditures.....	\$534,906 15

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$101,443,298 00
Premiums received thereon.....	614,719 05
Total risks in force Dec. 31, 1888.....	\$85,938,187 00
Total premiums received from commencement to date.....	\$5,786,915 00
Total losses paid from commencement to date.....	2,060,098 00
Excess of premiums over losses.....	\$4,248,611 00

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,107,176 00
Premiums received.....	16,906 72

*Losses Paid.*

Fire .....	\$8,025 09
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*Losses Incurred.*

Fire.....	\$8,025 09
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## AMERICAN FIRE INSURANCE COMPANY.

Principal Office.....Philadelphia.

(Organized in 1810.)

T. H. MONTGOMERY, *President.*

RICHARD MARIS, *Secretary.*

Attorney to accept service in Minnesota, INSURANCE COMMISSIONER, St. Paul.

CASH CAPITAL, \$500,000.

## I. ASSETS.

Value of real estate owned.....	\$230,100 00
Loans secured by mortgages on real estate.....	993,605 83
Market value of bonds and stocks.....	1,024,157 78
Loans secured by bonds and stocks as collateral.....	97,000 00
Cash on hand and in bank.....	111,784 74
Premiums in course of collection.....	34,337 48
All other assets.....	9,930 38
Total admitted assets.....	\$2,500,916 21

## II. LIABILITIES.

Capital stock paid up.....	\$500,000 00
Reserved for reinsurance.....	1,464,557 21
Unpaid losses.....	163,638 02
Other liabilities.....	3,305 00
Total liabilities, including capital.....	\$2,131,500 23
Net surplus.....	\$369,415 98



## III. INCOME IN 1888.

From premiums received.....	\$1, 494, 823 62
From interests and dividends.....	121, 102 31
From rents and all other sources.....	16, 435 00
Total income.....	<u>\$1, 632, 365 93</u>
Excess of income over expenditures.....	\$64, 555 78

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$986, 093 27
Dividends.....	49, 730 00
Commissions and brokerage.....	282, 237 70
Salaries of officers and employes.....	201, 685 47
Taxes.....	38, 422 04
All other expenditures.....	9, 641 67
Total expenditures.....	<u>\$1, 567, 810 15</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$144, 221, 155 00
Premiums received thereon.....	1, 727, 829 77
Total risks in force Dec. 31, 1888.....	<u>\$154, 073, 768 00</u>
Total premiums received from commencement to date.....	\$15, 730, 352 31
Total losses paid from commencement to date.....	9, 098, 667 62
Excess of premiums over losses.....	<u>\$6, 631, 684 69</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$2, 815, 210 00
Premiums received.....	48, 569 88

*Losses Paid.*

Fire.....	\$52, 643 67
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*Losses Incurred.*

Fire.....	\$52, 643 67
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## AMERICAN CENTRAL INSURANCE COMPANY.

Principal Office..... St. Louis, Mo.

(Organized in 1853.)

GEO. F. CRAM, *President.*

CHAS. CHRISTENSEN, *Secretary.*

Attorney to accept service in Minnesota, C. H. BIGELOW, St. Paul.

CASH CAPITAL, \$600, 000.

## I. ASSETS.

Value of real estate owned.....	\$500,000 00
Market value of bonds and stocks.....	540,000 00
Loans secured by bonds and stocks as collateral.....	110,000 00
Cash on hand and in bank.....	78,769 69
Premiums in course of collection .....	78,871 22
Total admitted assets.....	<u>\$1,807,640 91</u>

## II. LIABILITIES.

Capital stock paid up.....	\$600,000 00
Reserved for reinsurance.....	395,046 92
Unpaid losses.....	68,810 97
Other liabilities.....	11,830 68
Total liabilities, including capital .....	<u>\$1,075,688 57</u>
Net surplus .....	<u>\$231,952 34</u>

## III. INCOME IN 1888.

From premiums received.....	\$524,352 74
From interests and dividends.....	52,835 58
From rents and all other sources .....	11,441 58
Total income.....	<u>\$588,629 90</u>
Excess of income over expenditures.....	<u>\$33,978 80</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$323,855 97
Dividends.....	33,000 00
Commissions and brokerage.....	74,291 44
Salaries of officers and employes.....	49,471 01
Taxes.....	10,501 45
All other expenditures.....	63,531 23
Total expenditures.....	<u>\$554,651 10</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$50,575,759 00
Premiums received thereon.....	630,051 69
Total risks in force Dec. 31, 1888.....	<u>\$60,045,430 00</u>
Total premiums received from commencement to date.....	<u>\$10,749,506 10</u>
Total losses paid from commencement to date.....	<u>5,641,860 02</u>
Excess of premiums over losses.....	<u>\$5,107,646 08</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written .....	\$1,153,892 00
Premiums received.....	19,053 99

*Losses Paid.*

Fire.....	\$14,498 93
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*Losses Incurred.*

Fire.....	\$14,949 44
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## ANGLO-NEVADA ASSURANCE CORPORATION.

Principal Office.....San Francisco, Cal.

(Organized in 1885.)

LOUIS SLOSS, *President.*Z. P. CLARK, *Secretary.*

Attorney to accept service in Minnesota, A. R. MCGILL, St. Paul.

CASH CAPITAL, \$2,000,000.

## I. ASSETS.

Loans secured by mortgages on real estate.....	\$1,036,669 68
Market value of bonds and stocks.....	972,030 55
Loans secured by bonds and stocks as collateral.....	375,787 50
Cash on hand and in bank.....	81,860 89
Premiums in course of collection.....	151,190 29
All other assets.....	9,050 79
Total admitted assets.....	<u>\$2,626,589 70</u>

## II. LIABILITIES.

Capital stock paid up.....	\$2,000,000 00
Reserved for reinsurance.....	486,624 52
Unpaid losses.....	53,328 73
Other liabilities.....	10,822 02
Total liabilities, including capital.....	<u>\$2,550,775 27</u>
Net surplus.....	\$75,814 43

## III. INCOME IN 1888.

From premiums received.....	\$1,032,523 47
From interests and dividends.....	108,192 68
Total income.....	<u>\$1,140,716 15</u>
Excess of income over expenditures.....	\$163,228 02

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$586,081 96
Commissions and brokerage.....	221,388 62
Salaries of officers and employes.....	54,789 38
Taxes.....	10,660 71
All other expenditures.....	104,567 46
Total expenditures.....	<u>\$977,488 13</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$75,152,714 00
Premiums received thereon.....	1,305,170 51
Marine and inland risks written in 1888.....	18,057,904 00
Premiums received thereon.....	127,483 60
Total risks in force Dec. 31, 1888.....	<u>\$64,857,504 00</u>
Total premiums received from commencement to date.....	\$2,341,636 81
Total losses paid from commencement to date.....	1,160,769 45
Excess of premiums over losses.....	<u>\$1,180,867 36</u>

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## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$936,607 00
Premiums received.....	\$16,324 84

*Losses Paid.*

Fire.....	\$7,611 23
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*Losses Incurred.*

Fire.....	\$7,611 23
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## BOATMANS F. &amp; M. INSURANCE COMPANY.

Principal Office.....Pittsburgh, Pa

(Organized in 1865.)

O. P. SCAIFE, *President.*

H. H. SCHENCK, *Secretary.*

Attorney to accept service in Minnesota, M. S. DICKERSON, Minneapolis.

CASH CAPITAL, \$250,000.

## I. ASSETS.

Value of real estate owned.....	\$71,500 23
Loans secured by mortgages on real estate.....	53,027 41
Market value of bonds and stocks.....	230,254 00
Cash on hand and in bank.....	18,767 38
Premiums in course of collection.....	18,323 08
All other assets.....	1,027 60
Total admitted assets.....	\$392,899 70

## II. LIABILITIES.

Capital stock paid up.....	\$250,000 00
Reserved for reinsurance.....	106,684 62
Unpaid losses.....	30,089 31
Other liabilities.....	19,603 00
Total liabilities, including capital.....	\$406,376 93

## III. INCOME IN 1888.

From premiums received.....	\$187,302 86
From interests and dividends.....	15,499 72
From rents and all other sources.....	4,291 94
Total income.....	\$207,094 52



## IV. EXPENDITURES IN 1888.

Losses paid.....	\$149,152 36
Commissions and brokerage.....	36,371 37
Salaries of officers and employes.....	12,144 25
Taxes.....	5,907 13
All other expenditures.....	11,053 25
Total expenditures.....	\$214,628 36
Excess of expenditures over income.....	\$7,533 84

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$15,519,018 00
Premiums received thereon.....	205,005 65
Marine and inland risks written in 1888.....	1,025,110 00
Premiums received thereon.....	6,743 10
Total risks in force Dec. 31, 1888.....	\$15,444,240 00
Total premiums received from commencement to date.....	\$2,134,446 01
Total losses paid from commencement to date.....	1,385,260 49
Excess of premiums over losses.....	\$749,185 52

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$530,040 00
Premiums received.....	8,138 94

*Losses Paid.*

Fire.....	\$9,939 43
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*Losses Incurred.*

Fire.....	\$11,691 28
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## BOSTON MARINE INSURANCE COMPANY.

Principal Office.....Boston, Mass.

(Organized in 1883.)

R. B. FULLER, *President.*

T. H. LORD, *Secretary.*

Attorney to accept service in Minnesota, HOOKER, CRITTENDEN & CO., Duluth.

CASH CAPITAL, \$1,000,000.

## I. ASSETS.

Value of real estate owned.....	\$28,740 78
Loans secured by mortgages on real estate.....	534,860 76
Market value of bonds and stocks.....	830,518 63
Loans secured by bonds and stocks as collateral.....	73,560 00
Cash on hand and in bank.....	308,063 05
Premiums in course of collection.....	650,992 88
All other assets.....	2,322 45
Total admitted assets.....	\$2,429,058 55

## ANNUAL REPORT

## II. LIABILITIES.

Capital stock paid up.....	\$1,000,000 00
Reserved for reinsurance.....	395,414 07
Unpaid losses.....	187,919 00
Total liabilities, including capital.....	\$1,583,333 07
Net surplus.....	\$845,725 48

## III. INCOME IN 1888.

From premiums received.....	\$1,026,669 29
From interests and dividends.....	77,274 40
Total income.....	\$1,103,943 69
Excess of income over expenditures.....	\$168,773 57

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$680,809 03
Dividends.....	100,060 00
Commissions and brokerage.....	22,986 82
Salaries of officers and employes.....	38,521 72
Taxes.....	12,731 98
All other expenditures.....	80,120 57
Total expenditures.....	\$985,170 12

## V. MISCELLANEOUS.

Marine and inland risks written in 1888.....	\$84,121,490 00
Premiums received thereon.....	1,277,909 06
Total risks in force Dec. 31, 1889.....	\$10,925,728 00
Total premiums received from commencement to date.....	\$16,039,552 17
Total losses paid from commencement to date.....	10,765,360 66
Excess of premiums over losses.....	\$5,274,191 51

## BUSINESS IN MINNESOTA IN 1888.

*Inland.*

Risks written.....	\$353,715 00
Premiums received.....	1,090 81
Losses paid.....	324 04
Losses incurred.....	None.

## BOYLSTON INSURANCE COMPANY.

Principal Office..... Boston, Mass.

(Organized in 1872.)

J. W. BALCH, *President.*

WASHINGTON GLOVER, *Secretary.*

Attorney to accept service in Minnesota, J. J. WATSON, St. Paul.

CASH CAPITAL, \$557,200.

## I. ASSETS.

Loans secured by mortgages on real estate.....	\$184,770 79
Market value of bonds and stocks.....	518,732 00
Loans secured by bonds and stocks as collateral.....	103,000 00
Cash on hand and in bank.....	96,582 09
Premiums in course of collection.....	23,606 00
All other assets.....	14,792 69
Total admitted assets.....	<u>\$941,483 57</u>

## II. LIABILITIES.

Capital stock paid up.....	\$557,200 00
Reserved for reinsurance.....	201,461 70
Unpaid losses.....	34,900 00
Other liabilities.....	3,268 10
Total liabilities, including capital.....	<u>\$796,829 80</u>
Net surplus.....	<u>\$144,653 77</u>

## III. INCOME IN 1888.

From premiums received.....	\$289,751 47
From interests and dividends.....	49,606 55
From rents and all other sources.....	7,199 94
Total income.....	<u>\$346,557 96</u>
Excess of income over expenditures .....	<u>\$32,203 10</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$168,377 71
Dividends.....	35,135 50
Commissions and brokerage.....	49,485 20
Salaries of officers and employes.....	30,400 00
Taxes.....	2,191 54
All other expenditures.....	28,765 11
Total expenditures.....	<u>\$314,354 86</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$29,277,300 00
Premiums received thereon.....	302,953 05
Marine and inland risks written in 1888.....	5,707,601 00
Premiums received thereon.....	39,754 06
Total risks in force Dec. 31, 1888.....	<u>\$31,643,563 00</u>
Total premiums received from commencement to date.....	<u>\$5,609,760 43</u>
Total losses paid from commencement to date.....	<u>\$3,341,994 42</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$663,922 00
Premiums received.....	14,574 69

*Losses Paid.*

Fire .....	\$14,236 84
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*Losses Incurred.*

Fire .....	\$14,298 10
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## BUFFALO GERMAN INSURANCE COMPANY.

Principal Office.....Buffalo, N. Y.

(Organized in 1867.)

PHILIP BECKER, *President.*

O. J. EGGERT, *Secretary.*

Attorney to accept service in Minnesota, E. M. CHRISTIAN, Minneapolis.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Value of real estate owned.....	\$275,000 00
Loans secured by mortgages on real estate.....	372,162 08
Market value of bonds and stocks.....	407,476 38
Loans secured by bonds and stocks as collateral.....	97,500 00
Cash on hand and in bank.....	124,216 58
Premiums in course of collection.....	52,235 12
All other assets.....	1,294 16
Total admitted assets.....	\$1,329,884 32

## ASSETS NOT ADMITTED.

Bills receivable for fire premiums.....	\$2,492 68
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## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance.....	311,146 49
Unpaid losses.....	16,273 26
Other liabilities.....	7,751 56
Total liabilities, including capital.....	\$535,171 31
Net surplus.....	\$794,713 01

## III. INCOME IN 1888.

From premiums received.....	\$392,203 96
From interests and dividends.....	41,984 28
From rent and all other sources.....	18,024 39
Total income.....	\$452,212 63
Excess of income over expenditures.....	\$65,459 97

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$214,190 11
Dividends.....	40,000 00
Commissions and brokerage.....	78,961 65
Salaries of officers and employes.....	20,609 98
Taxes.....	7,032 52
All other expenditures.....	25,958 40
Total expenditures.....	\$386,752 66



## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$45,859,551 00
Premiums received thereon.....	491,739 87
Total risks in force Dec. 31, 1888.....	<u>\$56,898,768 00</u>
Total premiums received from commencement to date.....	\$5,248,857 05
Total losses paid from commencement to date.....	<u>2,575,548 30</u>
Excess of premiums over losses.....	\$2,673,308 75

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$2,134,467 00
Premiums received.....	<u>\$25,350 31</u>

*Losses Paid.*

Fire.....	<u>\$14,378 46</u>
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*Losses Incurred.*

Fire.....	<u>\$15,047 55</u>
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## BURLINGTON INSURANCE COMPANY.

Principal Office.....Burlington, Ia.

(Organized in 1860.)

JOHN G. MILLER, *President.*

JACOB ALTER, *Secretary.*

Attorney to accept service in Minnesota, CHAS. SHANDREW, St. Paul.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Value of real estate owned.....	\$12,120 00
Loans secured by mortgages on real estate.....	109,694 48
Market value of bonds and stocks.....	44,860 00
Loans secured by bonds and stocks as collateral.....	12,800 00
Cash on hand and in bank.....	102,308 89
Premiums in course of collection.....	23,927 51
All other assets.....	<u>1,421 52</u>
Total admitted assets.....	\$307,132 40

## ASSETS NOT ADMITTED.

Bills receivable for fire premiums.....	\$29,023 86
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## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance .....	68,923 14
Unpaid losses.....	11,370 80
Other liabilities.....	7,487 05
Total liabilities, including capital.....	<u>\$287,780 99</u>
Net surplus.....	\$ 9,351 41

## III. INCOME IN 1888.

From premiums received.....	\$112,122 29
From interests and dividends.....	10,741 63
Increase of capital stock.....	100,000 00
From rents and all other sources.....	355 50
Total income.....	<u>\$223,219 42</u>
Excess of income over expenditures.....	\$26,452 79

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$52,065 07
Dividends.....	65,000 00
Commissions and brokerage.....	38,301 69
Salaries of officers and employes.....	21,356 01
Taxes.....	4,906 03
All other expenditures.....	15,137 83
Total expenditures.....	<u>\$196,766 63</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$10,922,675 00
Premiums received thereon.....	165,799 77
Total risks in force Dec. 31, 1888.....	<u>\$18,719,181 00</u>
Total premiums received from commencement to date.....	\$1,878,697 97
Total losses paid from commencement to date.....	419,352 73
Excess of premiums over losses.....	<u>\$1,459,345 24</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$291,529 00
Premiums received.....	5,001 17
Losses paid .....	None
Losses incurred.....	None

## CALIFORNIA INSURANCE COMPANY.

Principal Office..... San Francisco Cal.

(Organized in 1861.)

L. L. BROMWELL, *President*.W. H. C. FOWLER, *Secretary*.

Attorney to accept service in Minnesota, JAS. H. WEED, St. Paul.

CASH CAPITAL, \$600,000.

## I. ASSETS.

Value of real estate owned.....	\$104,000 00
Loans secured by mortgages on real estate.....	21,906 32
Market value of bonds and stocks.....	663,415 00
Cash on hand and in bank.....	344,080 65
Premiums in course of collection.....	132,082 45
All other assets.....	47,801 62
Total admitted assets.....	<u>\$1,313,286 04</u>

## II. LIABILITIES.

Capital stock paid up.....	\$600,000 00
Reserved for reinsurance.....	411,442 41
Unpaid losses.....	94,570 92
Other liabilities.....	17,085 84
Total liabilities, including capital.....	<u>\$1,123,099 17</u>
Net surplus.....	\$190,186 87

## III. INCOME IN 1888.

From premiums received.....	\$663,229 00
From interests and dividends.....	37,303 80
From rents and all other sources.....	2,125 00
Total income.....	<u>\$702,657 80</u>
Excess of income over expenditures.....	\$76,416 46

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$315,832 30
Dividends.....	72,000 00
Commissions and brokerage.....	120,046 49
Salaries of officers and employes.....	45,900 36
Taxes.....	13,447 00
All other expenditures.....	59,015 19
Total expenditures.....	<u>\$626,241 34</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$42,599,880 00
Premiums received thereon.....	590,036 24
Marine and inland risks written in 1888.....	14,706,843 00
Premiums received thereon.....	300,876 61
Total risks in force Dec. 31, 1888.....	<u>\$42,851,790 00</u>
Total premiums received from commencement to date.....	\$6,442,038 87
Total losses paid from commencement to date.....	3,152,568 57
Excess of premiums over losses.....	<u>\$3,289,470 30</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,057,873 00
Premiums received.....	14,808 00

*Losses Paid.*

Fire.....	\$8,229 73
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*Losses Incurred.*

Fire.....	\$8,229 73
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## CITIZENS INSURANCE COMPANY.

Principal Office.....New York City.

(Organized in 1836.)

E. A. WALTON, *President.*

F. M. PARKER, *Secretary.*

Attorney to accept service in Minnesota, J. H. WEED, St. Paul.

CASH CAPITAL, \$300,000.

## I. ASSETS.

Value of real estate owned.....	\$119,500 00
Loans secured by mortgages on real estate.....	85,217 38
Market value of bonds and stocks.....	659,900 00
Loans secured by bonds and stocks as collateral.....	109,900 00
Cash on hand and in bank.....	50,455 11
Premiums in course of collection.....	94,279 10
All other assets.....	6,946 20
Total admitted assets.....	\$1,126,197 79

## II. LIABILITIES.

Capital stock paid up.....	\$300,000 00
Reserved for reinsurance.....	460,757 16
Unpaid losses.....	52,627 42
Other liabilities.....	19,173 87
Total liabilities, including capital.....	\$832,558 45
Net surplus.....	\$293,639 34

## III. INCOME IN 1888.

From premiums received.....	\$638,157 07
From interests and dividends.....	85,945 60
From rents and all other sources.....	5,736 51
Total income.....	\$679,839 18



## IV. EXPENDITURES IN 1888.

Losses paid.....	\$395,476 13
Dividends .....	29,956 20
Commissions and brokerage.....	122,275 65
Salaries of officers and employes.....	43,818 18
Taxes.....	15,830 85
All other expenditures.....	90,751 13
Total expenditures.....	\$698,108 14
Excess of expenditures over income.....	\$18,268 96

## V. MISCELLANEOUS.

Fire risks written in 1888 .....	\$89,345,141 15
Premiums received thereon.....	738,698 36
Total risks in force Dec. 31, 1888.....	\$103,729,454 19
Total premiums received from commencement to date.....	\$10,683,869 95
Total losses paid from commencement to date .....	5,179,534 01
Excess of premiums over losses.....	\$5,504,335 94

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$951,252 00
Premiums received.....	15,564 43

*Losses Paid.*

Fire.....	\$11,941 12
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*Losses Incurred.*

Fire.....	\$10,656 81
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## CITIZENS INSURANCE COMPANY.

Principal Office.....Pittsburgh, Pa.

(Organized in 1849.)

W. G. JOHNSTON, *President.*

J. R. SNIVELY, *Secretary.*

Attorney to accept service in Minnesota, JAMES C. STOUT, St. Paul.

CASH CAPITAL, \$500,000.

## I. ASSETS.

Value of real estate owned.....	\$108,000 00
Loans secured by mortgages on real estate.....	213,045 14
Market value of bonds and stocks.....	253,637 50
Loans secured by bonds and stocks as collateral.....	47,239 00
Cash on hand and in bank.....	46,799 37
Premiums in course of collection.....	23,333 28
All other assets.....	1,052 81
Total admitted assets.....	\$693,107 10

## II. LIABILITIES.

Capital stock paid up.....	\$500,000 00
Reserved for reinsurance.....	162,344 37
Unpaid losses.....	17,066 30
Other liabilities.....	595 69
Total liabilities, including capital.....	\$680,006 36
Net surplus.....	\$13,100 74

## III. INCOME IN 1888.

From premiums received.....	\$251,524 60
From interests and dividends.....	26,905 19
From rents and all other sources.....	5,575 74
Total income.....	\$284,005 53
Excess of income over expenditures.....	\$27,312 89

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$157,134 34
Commissions and brokerage.....	54,577 32
Salaries of officers and employes.....	10,912 18
Taxes.....	9,130 40
All other expenditures.....	24,938 90
Total expenditures.....	\$256,693 14

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$16,137,836 00
Premiums received thereon.....	290,971 66
Total risks in force Dec. 31, 1888.....	\$28,729,984 00
Total premiums received from commencement to date.....	\$2,853,435 25
Total losses paid from commencement to date.....	1,403,654 74
Excess of premiums over losses.....	\$1,449,780 51

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$484,562 00
Premiums received.....	8,904 55

*Losses Paid.*

Fire.....	\$9,572 77
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*Losses Incurred.*

Fire.....	\$9,572 77
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## COMMERCE INSURANCE COMPANY.

Principal Office.....Albany, N. Y.

(Organized in 1859.)

G. A. VAN ALLEN, *President.*RICHARD V. DE WITT, *Secretary.*

Attorney to accept service in Minnesota, JOSIAH THOMPSON, JR., Minneapolis.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Value of real estate owned.....	\$58,000 00
Loans secured by mortgages on real estate.....	13,900 00
Market value of bonds and stocks .....	362,925 00
Loans secured by bonds and stocks as collateral.....	12,800 00
Cash on hand and in bank.....	17,611 00
Premiums in course of collection.....	4,221 61
All other assets.....	818 00
Total admitted assets.....	\$470,275 61

## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance.....	72,885 77
Unpaid losses.....	15,071 00
Other liabilities.....	1,556 20
Total liabilities, including capital.....	\$289,512 97
Net surplus.....	\$180,762 64

## III. INCOME IN 1888.

From premiums received.....	\$111,428 45
From interests and dividends.....	20,702 64
From rents and all other sources.....	2,616 63
Total income.....	\$134,747 72

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$82,346 58
Dividends.....	20,000 00
Commissions and brokerage.....	20,175 89
Salaries of officers and employes.....	11,632 50
Taxes.....	3,909 84
All other expenditures.....	5,856 84
Total expenditures.....	\$143,921 65
Excess of expenditures over income.....	\$9,173 93

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$12,544,958 00
Premiums received thereon.....	130,218 85
Total risks in force Dec. 31, 1888.....	\$13,780,407 00
Total premiums received from commencement to date.....	\$4,228,609 00
Total losses paid from commencement to date.....	2,799,405 00
Excess of premiums over losses.....	\$1,429,204 00

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$533,500 00
Premiums received.....	7,807 17

*Losses Paid.*

Fire.....	\$5,712 15
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*Losses Incurred.*

Fire.....	\$5,912 15
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## COMMERCIAL INSURANCE COMPANY.

Principal Office.....San Francisco, Cal.

(Organized in 1872.)

JOHN H. WISE, *President.*

C. A. LATON, *Secretary.*

Attorney to accept service in Minnesota, S. S. EATON, St. Paul.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Value of real estate owned.....	\$5,030 80
Loans secured by mortgages on real estate.....	176,291 17
Market value of bonds and stocks.....	144,791 25
Loans secured by bonds and stocks as collateral.....	10,000 00
Cash on hand and in bank.....	25,026 82
Premiums in course of collection.....	84,415 02
All other assets.....	4,531 64
Total admitted assets.....	\$450,086 70

## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance.....	172,794 76
Unpaid losses.....	25,227 44
Other liabilities.....	3,339 32
Total liabilities, including capital.....	\$401,361 52
Net surplus.....	\$48,725 18



## III. INCOME IN 1888.

From premiums received.....	\$402,724 63
From interests and dividends .....	36,234 06
Total income.....	<u>\$438,958 69</u>
Excess of income over expenditures.....	\$3,348 44

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$254,328 40
Dividends.....	24,000 00
Commissions and brokerage.....	85,649 70
Salaries of officers and employes.....	33,299 62
Taxes.....	8,041 49
All other expenditures.....	30,291 04
Total expenditures.....	<u>\$435,610 25</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$30,713,144 00
Premiums received thereon.....	473,647 38
Marine and inland risks written in 1888.....	2,209,181 00
Premiums received thereon.....	29,460 13
Total risks in force Dec. 31, 1888.....	<u>\$23,501,883 00</u>
Total premiums received from commencement to date.....	\$4,008,992 61
Total losses paid from commencement to date.....	2,101,032 64
Excess of premiums over losses.....	<u>\$1,907,959 97</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$543,099 00
Premiums received.....	11,029 12

*Losses Paid.*

Fire.....	\$5,686 12
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*Losses Incurred.*

Fire.....	\$6,236 12
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## COMMONWEALTH INSURANCE COMPANY.

Principal Office.....New York City

(Organized in 1886.)

M. M. BELDING, *President.*CHAS. S. BARTOW, *Secretary.*

Attorney to accept service in Minnesota, FRANK BENNER, Minneapolis.

CASH CAPITAL, \$500,000.

## I. ASSETS.

Loans secured by mortgages on real estate.....	\$71,797 92
Market value of bonds and stocks.....	494,220 50
Cash on hand and in bank.....	123,998 86
Premiums in course of collection.....	21,971 48
All other assets.....	1,545 00
Total admitted assets.....	\$713,533 76

## II. LIABILITIES.

Capital stock paid up. ....	\$500,000 00
Reserved for reinsurance.....	103,462 74
Unpaid losses.....	9,899 23
Other liabilities.....	3,049 72
Total liabilities, including capital.....	616,411 69
Net surplus.....	\$97,122 07

## III. INCOME IN 1888.

From premiums received.....	\$210,579 85
From interests and dividends.....	19,183 59
Total income.....	\$229,763 44
Excess of income over expenditures.....	\$81,847 60

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$82,557 37
Commissions and brokerage.....	14,412 93
Salaries of officers and employes. ....	26,453 06
Taxes.....	4,664 40
All other expenditures.....	19,828 08
Total expenditures.....	\$147,915 84

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$27,291,638 00
Premiums received thereon.....	242,423 58
Total risks in force Dec. 31, 1888.....	\$19,422,777 00
Total premiums received from commencement to date.....	\$442,967 74
Total losses paid from commencement to date.....	142,234 76
Excess of premiums over losses.....	\$300,732 98

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$312,925 00
Premiums received.....	3,133 79
Losses paid.....	None.
Losses incurred.....	None.

## CONCORDIA FIRE INSURANCE COMPANY.

Principal Office.....Milwaukee, Wis.

(Organized in 1870.)

J. H. INBUSH, *President.*GUSTAV WOLLAEGER, *Secretary.*

Attorney to accept service in Minnesota, J. Q. HAAS, St. Paul.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Loans secured by mortgages on real estate.....	\$344,400 87
Market value of bonds and stocks.....	146,375 00
Cash on hand and in bank.....	44,953 85
Premiums in course of collection.....	43,503 16
All other assets.....	2,152 77
Total admitted assets.....	\$581,385 65

## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance.....	296,709 52
Unpaid losses.....	33,257 48
Other liabilities.....	6,922 37
Total liabilities, including capital.....	\$536,889 37
Net surplus.....	\$44,496 28

## III. INCOME IN 1888.

From premiums received.....	\$409,177 08
From interests and dividends.....	27,519 21
From rents and all other sources.....	240 00
Total income.....	\$436,936 29
Excess of income over expenditures.....	\$35,517 61

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$228,630 05
Dividends.....	14,000 00
Commissions and brokerage.....	93,966 24
Salaries of officers and employees.....	22,180 00
Taxes.....	8,472 34
All other expenditures.....	34,170 05
Total expenditures.....	\$401,418 68

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## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$36,792,856 00
Premiums received thereon.....	461,827 71
Total risks in force Dec. 31, 1888.....	\$44,748,778 00
Total premiums received from commencement to date.....	\$2,094,666 31
Total losses paid from commencement to date.....	1,095,791 89
Excess of premiums over losses.....	\$998,874 42

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,653,929 00
Premiums received.....	27,342 99

*Losses Paid.*

Fire.....	\$12,146 90
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*Losses Incurred.*

Fire.....	\$12,038 31
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## CONNECTICUT FIRE INSURANCE COMPANY.

Principal Office..... Hartford, Conn.

(Organized in 1850.)

J. D. BROWNE, *President.*

CHAS. R. BURT, *Secretary.*

Attorney to accept service in Minnesota, C. W. KIBBEE, St. Paul.

CASH CAPITAL, \$1,000,000.

## I. ASSETS.

Value of real estate owned.....	\$87,550 00
Loans secured by mortgages on real estate.....	624,650 00
Market value of bonds and stocks.....	1,256,787 00
Loans secured by bonds and stocks as collateral.....	19,300 00
Cash on hand and in bank.....	161,717 27
Premiums in course of collection.....	110,912 74
Total admitted assets.....	\$2,260,917 01

## II. LIABILITIES.

Capital stock paid up.....	\$1,000,000 00
Reserved for reinsurance.....	696,382 84
Unpaid losses.....	109,815 34
Total liabilities, including capital.....	\$1,806,198 18
Net surplus.....	\$454,718 83



## III. INCOME IN 1888.

From premiums received.....	\$1,015,125 32
From interests and dividends.....	99,643 58
Total income.....	<u>\$1,114,768 90</u>
Excess of income over expenditures.....	<u>\$90,540 84</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$602,957 42
Dividends.....	80,000 00
Commissions and brokerage.....	159,863 25
Salaries of officers and employes.....	83,001 08
Taxes.....	23,601 53
All other expenditures.....	74,804 78
Total expenditures.....	<u>\$1,024,228 06</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$101,112,207 00
Premiums received thereon.....	1,247,388 41
Total risks in force Dec. 31, 1888.....	<u>\$109,120,083 00</u>
Total premiums received from commencement to date.....	\$10,091,669 44
Total losses paid from commencement to date.....	5,609,293 10
Excess of premiums over losses.....	<u>\$4,482,376 34</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$2,936,803 00
Premiums received.....	31,420 00

*Losses Paid.*

Fire.....	<u>\$31,219 67</u>
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*Losses Incurred.*

Fire.....	<u>\$28,110 18</u>
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## CONTINENTAL INSURANCE COMPANY.

Principal Office.....New York City.

(Organized in 1852.)

H. H. LAMPORT, *President.*CYRUS PECK, *Secretary.*

Attorney to accept service in Minnesota, INSURANCE COMMISSIONER, St. Paul.

CASH CAPITAL, \$1,000,000.

## I. ASSETS.

Value of real estate owned.....	\$690,500 00
Loans secured by mortgages on real estate.....	170,909 25
Market value of bonds and stocks.....	3,487,487 00
Loans secured by bonds and stocks as collateral.....	140,700 00
Cash on hand and in bank.....	278,172 61
Premiums in course of collection.....	146,450 04
All other assets.....	164,175 79
Total admitted assets.....	\$5,028,344 69

## II. LIABILITIES.

Capital stock paid up.....	\$1,000,000 00
Reserved for reinsurance.....	2,501,884 39
Unpaid losses.....	204,763 24
Other liabilities.....	95,005 40
Total liabilities, including capital.....	\$3,801,653 03
Net surplus.....	\$1,226,691 66

## III. INCOME IN 1888.

From premiums received.....	\$2,245,145 43
From interests and dividends.....	189,394 24
From rents and all other sources.....	39,399 38
Total income.....	\$2,473,939 05
Excess of income over expenditures..	\$168,616 46

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$1,245,697 41
Dividends.....	128,564 22
Commissions and brokerage.....	427,351 56
Salaries of officers and employees.....	278,861 11
Taxes.....	50,334 97
All other expenditures.....	174,513 32
Total expenditures.....	\$2,305,322 59

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$276,625,151 00
Premiums received thereon.....	2,447,660 81
Total risks in force Dec. 31, 1888.....	\$534,415,890 00
Total premiums received from commencement to date.....	\$42,631,575 99
Total losses paid from commencement to date.....	23,692,091 81
Excess of premiums over losses.....	\$18,939,484 18

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$13, 026, 848 00
Premiums received.....	141, 542 62

*Losses Paid.*

Fire.....	\$78, 357 35
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*Losses Incurred.*

Fire.....	\$81, 825 94
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## DETROIT FIRE AND MARINE INSURANCE COMPANY.

Principal Office.....Detroit, Mich.

(Organized in 1866.)

W. A. BUTLER, *President.*

J. J. CLARK, *Secretary.*

Attorney to accept service in Minnesota, C. H. BIGELOW, St. Paul.

CASH CAPITAL, \$350,000.

## I. ASSETS.

Value of real estate owned.....	\$69, 757 57
Loans secured by mortgages on real estate.....	734, 479 54
Market value of bonds and stocks.....	49, 400 00
Loans secured by bonds and stocks as collateral.....	2, 800 00
Cash on hand and in bank.....	42, 525 46
Premiums in course of collection.....	19, 226 31
All other assets.....	4, 110 36
Total admitted assets .....	\$922, 299 24

## II. LIABILITIES.

Capital stock paid up.....	\$850, 000 00
Reserved for reinsurance .....	127, 452 90
Unpaid losses.....	13, 175 31
Other liabilities.....	262 50
Total liabilities, including capital.....	\$490, 890 71
Net surplus.....	\$431, 408 53

## III. INCOME IN 1888.

From premiums received.....	\$237, 546 12
From interests and dividends.....	50, 269 26
From rents and all other sources.....	1, 445 36
Total income.....	\$289, 260 74
Excess of income over expenditures.....	\$60, 174 79

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$121,627 55
Dividends .....	35,000 00
Commissions and brokerage.....	29,448 91
Salaries of officers and employes.....	16,792 47
Taxes .....	10,527 17
All other expenditures.....	15,689 85
Total expenditures.....	\$229,085 95

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$18,021,724 00
Premiums received thereon.....	209,392 88
Marine and inland risks written in 1888.....	3,191,454 00
Premiums received thereon .....	63,689 07
Total risks in force Dec. 31, 1888.....	\$20,739,173 00
Total premiums received from commencement to date.....	\$4,266,469 61
Total losses paid from commencement to date.....	2,271,293 20
Excess of premiums over losses.....	\$1,995,176 41

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$922,011 00
Premiums received.....	10,949 05

*Losses Paid.*

Fire .....	\$6,779 30
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*Losses Incurred.*

Fire .....	\$6,329 30
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## EAGLE FIRE INSURANCE COMPANY.

Principal Office.....New York City.

(Organized in 1866.)

A. J. CLINTON, *President.*

T. J. GAINES, *Secretary.*

Attorney to accept service in Minnesota, E. M. CHRISTIAN, Minneapolis.

CASH CAPITAL, \$300,000.

## I. ASSETS.

Value of real estate owned.....	\$449,000 00
Loans secured by mortgages on real estate .....	20,098 25
Market value of bonds and stocks.....	581,098 50
Loans secured by bonds and stocks as collateral.....	400 00
Cash on hand and in bank.....	10,614 38
Premiums in course of collection.....	18,890 48
All other assets.....	11,320 96
Total admitted assets.....	\$1,091,422 57



## II. LIABILITIES.

Capital stock paid up.....	\$300,000 00
Reserved for reinsurance.....	100,182 57
Unpaid losses.....	8,711 26
Other liabilities.....	5,993 96
Total liabilities, including capital.....	<u>\$414,887 79</u>
Net surplus.....	\$676,534 78

## III. INCOME IN 1888.

From premiums received.....	\$110,109 69
From interests and dividends.....	23,629 96
From rents and all other sources .....	30,616 00
Total income.....	<u>\$164,355 65</u>
Excess of income over expenditures.....	\$8,520 76

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$51,619 85
Dividends.....	29,793 00
Commissions and brokerage.....	21,077 69
Salaries of officers and employes.....	30,595 10
Taxes.....	8,151 93
All other expenditures.....	14,597 32
Total expenditures.....	<u>\$155,834 89</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$28,681,023 00
Premiums received thereon.....	132,801 84
Total risks in force Dec. 31, 1888.....	<u>\$35,159,935 00</u>
Total premiums received from commencement to date.....	\$6,500,645 18
Total losses paid from commencement to date.....	3,079,136 77
Excess of premiums over losses.....	<u>\$3,421,508 41</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$261,791 00
Premiums received.....	2,806 18
Losses paid .....	None..
Losses incurred .....	None..

## EMPIRE STATE INSURANCE COMPANY.

Principal Office.....Rochester, N. Y.

(Organized in 1888.)

HENRY NICHOLS, *President.*JAMES JOHNSTON, *Secretary.*

Attorney to accept service in Minnesota, W. H. HART, St. Paul.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Loans secured by mortgages on real estate.....	\$114,434 55
Cash on hand and in bank.....	124,945 26
Premiums in course of collection.....	9,143 78
Total admitted assets.....	\$248,523 59

## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserve for reinsurance.....	39,412 69
Unpaid losses.....	8,040 47
Total liabilities, including capital.....	\$247,453 16
Net surplus.....	\$1,070 43

## III. INCOME IN 1888.

From premiums received.....	\$67,476 84
From interests and dividends.....	12,396 51
Total income.....	\$79,873 35
Excess of income over expenditures.....	\$38,495 26

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$13,767 07
Commissions and brokerage.....	12,485 54
Salaries of officers and employes.....	3,638 86
Taxes.....	1,806 36
All other expenditures.....	9,680 26
Total expenditures.....	\$41,378 09

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$6,999,290 00
Premiums received thereon.....	85,087 79
Total risks in force Dec. 31, 1888.....	\$5,666,250 00
Total premiums received from commencement to date.....	\$76,620 62
Total losses paid from commencement to date.....	13,767 07
Excess of premiums over losses.....	\$62,853 55

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$276,260 00
Premiums received.....	5,446 88
Losses paid.....	None.
Losses incurred.....	None.

# ENTERPRISE FIRE AND MARINE INSURANCE COMPANY.

Principal Office.....[Cincinnati, Ohio.

(Organized in 1866.)

J. W. McCORD, *President*.

J. C. SHERLOCK, *Secretary*.

Attorney to accept service in Minnesota, CHARLES SHANDREW, St. Paul.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Value of real estate owned.....	\$80,000 00
Loans secured by mortgages on real estate.....	14,044 75
Market value of bonds and stocks.....	103,652 50
Loans secured by bonds and stocks as collateral.....	28,455 00
Cash on hand and in bank.....	8,541 06
Premiums in course of collection.....	9,770 74
All other assets.....	1,211 43
Total admitted assets.....	<u>\$245,675 48</u>

## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance.....	40,083 32
Unpaid losses.....	1,362 50
Other liabilities.....	208 42
Total liabilities, including capital.....	<u>\$241,654 24</u>
Net surplus.....	\$4,021 24

## III. INCOME IN 1888.

From premiums received.....	\$68,525 92
From interests and dividends.....	7,376 15
From rents and all other sources.....	11,189 76
Total income.....	<u>\$87,091 83</u>
Excess of income over expenditures.....	\$4,132 98

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$44,638 64
Commissions and brokerage.....	11,560 00
Salaries of officers and employes.....	8,077 21
Taxes.....	3,949 87
All other expenditures.....	14,733 13
Total expenditures.....	<u>\$82,958 85</u>

## ANNUAL REPORT

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$5,809,923 00
Premiums received thereon.....	80,163 28
Marine and inland risks written in 1888 .....	256,693 00
Premiums received thereon.....	1,499 80
Total risks in force Dec. 31, 1888.....	\$5,297,482 00
Total premiums received from commencement to date .....	\$4,481,417 23
Total losses paid from commencement to date .....	2,936,703 19
Excess of premiums over losses.....	\$1,544,714 04

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$595,698 00
Premiums received.....	12,455 05

*Losses Paid.*

Fire.....	\$8,261 08
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*Losses Incurred.*

Fire.....	\$8,261 08
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## EQUITABLE FIRE AND MARINE INSURANCE COMPANY.

Principal Office.....Providence, R. I.

(Organized in 1859.)

FRED W. ARNOLD, *President.*

J. E. TILLINGHAST, *Secretary.*

Attorney to accept service in Minnesota, C. W. SEXTON, Minneapolis.

CASH CAPITAL, \$300,000.

## I. ASSETS.

Value of real estate owned.....	\$129,900 00
Loans secured by mortgages on real estate .....	99,856 00
Market value of bonds and stocks.....	289,800 00
Loans secured by bonds and stocks as collateral.....	900 00
Cash on hand and in bank.....	19,562 08
Premiums in course of collection.....	27,052 77
All other assets .....	1,572 00
Total admitted assets .....	\$568,642 85

## II. LIABILITIES.

Capital stock paid up .....	\$300,000 00
Reserved for reinsurance.....	142,229 37
Unpaid losses.....	20,699 00
Other liabilities.....	2,660 80
Total liabilities, including capital.....	\$465,589 17
Net surplus.....	\$103,053 68



## III. INCOME IN 1888.

From premiums received .....	\$228,366 26
From interests and dividends.....	20,313 54
From rents and all other sources .....	4,485 59
Total income.....	<u>\$253,165 39</u>
Excess of income over expenditures.....	<u>\$5,774 89</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$142,288 50
Dividends.....	21,242 00
Commissions and brokerage.....	41,238 31
Salaries of officers and employes.....	34,422 19
Taxes.....	8,139 50
Total expenditures.....	<u>\$247,390 50</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$23,219,432 00
Premiums received thereon .....	255,461 23
Marine and inland risks written in 1888.....	2,060,150 00
Premiums received thereon.....	11,143 29
Total risks in force Dec. 31, 1888.....	<u>\$23,807,406 00</u>
Total premiums received from commencement to date.....	\$3,385,260 94
Total losses paid from commencement to date.....	<u>2,273,447 60</u>
Excess of premiums over losses .....	<u>\$1,111,813 34</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$626,005 00
Premiums received.....	8,879 42

*Losses Paid.*

Fire.....	\$4,331 50
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*Losses Incurred.*

Fire .....	\$4,951 92
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## EXCHANGE FIRE INSURANCE COMPANY.

Principal Office.....New York City

(Organized in 1853.)

R. C. COMBES, *President.*G. W. MONTGOMERY, *Secretary.*

Attorney to accept service in Minnesota, ALEX. McDOUGAL, Duluth.

CASH CAPITAL, \$200,010.

## I. ASSETS.

Loans secured by mortgages on real estate.....	\$69,434 69
Market value of bonds and stocks.....	203,450 00
Loans secured by bonds and stocks as collateral.....	100,975 00
Cash on hand and in bank.....	33,474 07
Premiums in course of collection.....	57,535 63
All other assets.....	15,279 56
Total admitted assets.....	\$480,148 95

## II. LIABILITIES.

Capital stock paid up .....	\$200,010 00
Reserved for reinsurance.....	133,652 88
Unpaid losses.....	35,000 00
Other liabilities.....	10,942 77
Total liabilities, including capital.....	\$379,605 65
Net surplus.....	\$100,543 30

## III. INCOME IN 1888.

From premiums received.....	\$379,305 15
From interests and dividends.....	15,022 76
Total income.....	\$394,327 91

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$307,473 21
Dividends.....	14,000 70
Commissions and brokerage.....	73,803 20
Salaries of officers and employes.....	22,337 35
Taxes.....	4,091 96
All other expenditures.....	12,871 06
Total expenditures.....	\$434,077 48
Excess of expenditures over income.....	\$39,749 57

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$25,321,686 00
Premiums received thereon.....	356,278 52
Marine and inland risks written in 1888.....	10,097,397 00
Premiums received thereon.....	100,805 44
Total risks in force Dec. 31, 1888.....	\$33,053,225 00
Total premiums received from commencement to date.....	\$4,508,574 00
Total losses paid from commencement to date.....	2,762,035 00
Excess of premiums over losses.....	\$1,746,539 00

## INSURANCE COMMISSIONER.

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## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,830,617 00
Premiums received.....	30,948 05

*Inland.*

Risks written.....	\$23,954 00
Premiums received.....	111 91

*Losses Paid.*

Fire, \$3,924.98; inland, \$169.02; Total.....	\$4,094 00
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*Losses Incurred.*

Fire, \$4,454.98; inland, \$169.02; Total.....	\$4,624 00
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## FARMERS FIRE INSURANCE COMPANY.

Principal Office.....York, Pa.

(Organized in 1853.)

G. E. HERSH, *President.*D. STRICKLER, *Secretary.*

Attorney to accept service in Minnesota, F. H. WAGNER, Minneapolis.

## I. ASSETS.

Value of real estate owned.....	\$36,500 00
Loans secured by mortgages on real estate.....	202,503 33
Market value of bonds and stocks.....	218,672 50
Loans secured by bonds and stocks as collateral.....	1,300 00
Cash on hand and in bank.....	47,265 15
Premiums in course of collection.....	20,658 08
All other assets.....	66 53
Total admitted assets.....	\$526,965 59

## II. LIABILITIES.

Reserved for reinsurance.....	\$267,371 69
Unpaid losses.....	19,055 77
Other liabilities.....	2,672 31
Total liabilities, including capital.....	\$289,099 77
Net surplus.....	\$237,865 82

## III. INCOME IN 1888.

From premiums received.....	\$297,500 58
From interests and dividends.....	24,346 00
From rents and all other sources.....	1,725 60
Total income.....	\$323,572 18
Excess of income over expenditures.....	\$27,142 84

## ANNUAL REPORT

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$188,710 94
Commissions and brokerage.....	60,249 08
Salaries of officers and employes.....	20,950 76
Taxes.....	6,494 44
All other expenditures.....	20,024 12
Total expenditures.....	\$296,429 34

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$26,425,034 00
Premiums received thereon.....	329,701 13
Total risks in force Dec. 31, 1888.....	\$42,300,977 00
Total premiums received from commencement to date.....	\$5,797,957 45
Total losses paid from commencement to date.....	3,690,155 23
Excess of premiums over losses.....	\$2,107,802 22

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$962,502 00
Premiums received .....	12,740 27

*Losses Paid.*

Fire.....	\$7,391 81
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*Losses Incurred.*

Fire.....	\$7,037 83
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## FARRAGUT FIRE INSURANCE COMPANY.

Principal Office.....New York City.

(Organized in 1872.)

J. E. LEFFINGWELL, *President.*

SAMUEL DARBEE, *Secretary.*

Attorney to accept service in Minnesota, W. N. KEITH, Minneapolis.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Value of real estate owned.....	\$6,000 00
Loans secured by mortgages on real estate.....	22,322 50
Market value of bonds and stocks.....	313,249 75
Loans secured by bonds and stocks as collateral.....	3,900 00
Cash on hand and in bank.....	29,382 67
Premiums in course of collection.....	21,549 08
All other assets.....	4,130 50
Total admitted assets.....	\$400,534 50



## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance.....	106,552 11
Unpaid losses.....	11,044 70
Other liabilities.....	3,886 52
Total liabilities, including capital.....	\$321,483 33
Net surplus.....	\$79,051 17

## III. INCOME IN 1888.

From premiums received.....	\$153,483 33
From interests and dividends.....	14,336 79
From rents and all other sources.....	480 00
Total income.....	\$168,300 12

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$101,867 09
Dividends.....	20,000 00
Commissions and brokerage.....	26,725 23
Salaries of officers and employes.....	23,458 33
Taxes.....	3,063 64
All other expenditures.....	17,308 36
Total expenditures.....	\$192,422 65
Excess of expenditures over income.....	\$24,122 53

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$20,916,556 00
Premiums received thereon.....	166,700 43
Total risks in force Dec. 31, 1888.....	\$25,969,470 00
Total premiums received from commencement to date.....	\$2,534,822 23
Total losses paid from commencement to date.....	1,135,357 23
Excess of premiums over losses.....	\$1,399,465 00

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,094,242 00
Premiums received.....	14,656 87

*Losses Paid.*

Fire .....	\$7,752 31
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*Losses Incurred.*

Fire.....	\$9,836 40
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## FIREMENS INSURANCE COMPANY.

Principal Office.....Newark, N. J.

(Organized in 1855.)

JOHN H. KASE, *President.*CHAS. COLYER, *Secretary.*

Attorney to accept service in Minnesota, C. E. D. OLMSTED, St. Paul.

CASH CAPITAL, \$600,000.

## I. ASSETS.

Value of real estate owned.....	\$121,678 08
Loans secured by mortgages on real estate.....	915,339 69
Market value of bonds and stocks.....	674,631 42
Cash on hand and in bank.....	32,782 80
Premiums in course of collection.....	8,813 86
All other assets.....	1,108 50
Total admitted assets.....	\$1,754,354 35

## II. LIABILITIES.

Capital stock paid up.....	\$600,000 00
Reserved for reinsurance.....	210,907 36
Unpaid losses.....	23,565 82
Other liabilities.....	4,448 59
Total liabilities, including capital.....	\$838,921 77
Net surplus.....	\$915,432 58

## III. INCOME IN 1888.

From premiums received.....	\$288,706 88
From interests and dividends.....	86,934 96
From rents and all other sources.....	7,920 07
Total income.....	\$383,561 91
Excess of income over expenditures.....	\$36,495 16

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$174,547 34
Dividends.....	72,000 00
Commissions and brokerage.....	49,871 23
Salaries of officers and employes.....	19,834 01
Taxes.....	11,089 29
All other expenditures.....	20,224 88
Total expenditures.....	\$347,066 75

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$36,471,363 00
Premiums received thereon.....	328,671 07
Total risks in force Dec. 31, 1888.....	\$45,195,135 00
Total premiums received from commencement to date.....	\$4,922,620 96
Total losses paid from commencement to date.....	1,947,260 29
Excess of premiums over losses.....	\$2,975,360 67

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,043,950 00
Premiums received.....	12,082 54

*Losses Paid.*

Fire.....	\$11,100 91
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*Losses Incurred.*

Fire.....	\$11,097 24
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## FIREMENS INSURANCE COMPANY.

Principal Office.....Dayton, Ohio.

(Organized in 1856.)

S. CRAIGHEAD, *President.*

CHAS. RICHARDSON, *Secretary.*

Attorney to accept service in Minnesota, E. B. AMES, Minneapolis.

CASH CAPITAL, \$250,000.

## I. ASSETS.

Value of real estate owned.....	\$84,147 81
Loans secured by mortgages on real estate.....	222,064 39
Market value of bonds and stocks.....	108,020 00
Loans secured by bonds and stocks as collateral.....	1,200 00
Cash on hand and in bank.....	44,950 77
Premiums in course of collection .....	17,257 82
All other assets.....	1,414 48
Total admitted assets.....	<u>\$479,055 27</u>

## ASSETS NOT ADMITTED.

Bills receivable for fire premiums.....	\$3,211 03
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## II. LIABILITIES.

Capital stock paid up.....	\$250,000 00
Reserved for reinsurance.....	149,029 68
Unpaid losses.....	18,444 16
Other liabilities.....	4,180 54
Total liabilities, including capital .....	<u>\$421,654 38</u>
Net surplus .....	\$57,400 89

## ANNUAL REPORT

## III. INCOME IN 1888.

From premiums received .....	\$200,920 14
From interests and dividends.....	20,461 06
From rents and all other sources .....	7,792 78
Total income.....	<u>\$229,173 98</u>
Excess of income over expenditures.....	<u>\$14,496 40</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$138,545 86
Dividends.....	7,500 00
Commissions and brokerage.....	32,769 74
Salaries of officers and employes.....	13,889 76
Taxes.....	5,862 21
All other expenditures.....	16,109 96
Total expenditures.....	<u>\$214,677 53</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$16,873,520 00
Premiums received thereon.....	250,653 97
Total risks in force Dec. 31, 1888.....	<u>\$24,733,126 00</u>
Total premiums received from commencement to date.....	<u>\$3,323,086 98</u>
Total losses paid from commencement to date.....	<u>1,469,741 37</u>
Excess of premiums over losses.....	<u>\$1,853,345 61</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written .....	\$662,330 00
Premiums received.....	8,958 35

*Losses Paid.*

Fire.....	\$6,737 87
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*Losses Incurred.*

Fire.....	\$6,749 62
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## FIRE ASSOCIATION OF NEW YORK.

Principal Office.....New York City.

(Organized in 1886.)

P. B. ARMSTRONG, *President.*J. C. HATIE, *Secretary.*

Attorney to accept service in Minnesota, A. R. MCGILL, St. Paul.

CASH CAPITAL, \$300,000.

## I. ASSETS.

Market value of bonds and stocks.....	\$419,257 50
Loans secured by bonds and stocks as collateral.....	25,000 00
Cash on hand and in bank.....	60,925 61
Premiums in course of collection.....	34,519 12
All other assets.....	4,166 66
Total admitted assets.....	<u>\$543,868 89</u>

## II. LIABILITIES.

Capital stock paid up.....	\$300,000 00
Reserved for reinsurance.....	140,237 04
Unpaid losses.....	25,040 00
Other liabilities.....	2,580 17
Total liabilities, including capital.....	<u>\$467,857 21</u>
Net surplus.....	<u>\$76,011 68</u>

## III. INCOME IN 1888.

From premiums received.....	\$259,200 27
From interests and dividends.....	10,356 69
Total income.....	<u>\$269,556 96</u>
Excess of income over expenditures.....	<u>\$78,736 95</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$113,415 47
Dividends.....	18,000 00
Salaries of officers and employes.....	18,931 79
Taxes.....	3,686 02
All other expenditures.....	36,786 73
Total expenditures.....	<u>\$190,820 01</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$29,174,121 00
Premiums received thereon.....	357,881 43
Total risks in force Dec. 31, 1888.....	<u>\$21,643,888 00</u>
Total premiums received from commencement to date.....	\$594,408 80
Total losses paid from commencement to date.....	320,273 47
Excess of premiums over losses.....	<u>\$274,135 33</u>

## ANNUAL REPORT

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$938,194 00
Premiums received.....	12,735 94

*Losses Paid.*

Fire.....	\$2 00
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*Losses Incurred.*

Fire.....	\$2 00
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## FIRE ASSOCIATION OF PHILADELPHIA.

Principal Office.....Philadelphia, Pa.

(Organized in 1820.)

J. LIGHTFOOT, *President.*

W. L. WINSHIP, *Secretary.*

Attorney to accept service in Minnesota, E. B. AMES, Minneapolis.

CASH CAPITAL, \$500,000.

## I. ASSETS.

Value of real estate owned.....	\$47,700 00
Loans secured by mortgages on real estate.....	1,373,080 29
Market value of bonds and stocks.....	2,680,582 50
Loans secured by bonds and stocks as collateral.....	145,000 00
Cash on hand and in bank.....	123,162 78
Premiums in course of collection.....	135,143 78
All other assets.....	19,109 35
Total admitted assets.....	\$4,523,778 70

## ASSETS NOT ADMITTED.

Company's own stock.....	\$4,750 00
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## II. LIABILITIES.

Capital stock paid up.....	\$500,000 00
Reserved for reinsurance.....	3,000,737 50
Unpaid losses.....	189,085 42
Total liabilities, including capital.....	\$3,689,822 92
Net surplus.....	\$833,955 78

## III. INCOME IN 1888.

From premiums received.....	\$1,612,448 67
From interests and dividends.....	209,178 13
From rents and all other sources.....	8,524 06
Total income.....	\$1,830,140 86

## IV. EXPENDITURES IN 1888.

Losses paid .....	\$1,119,220 01
Dividends .....	200,000 00
Commissions and brokerage.....	337,038 48
Salaries of officers and employes.....	117,023 67
Taxes.....	56,024 99
All other expenditures.....	21,728 33
Total expenditures.....	<u>\$1,851,035 48</u>
Excess of expenditures over income ...	\$20,894 62

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$149,155,388 00
Premiums received thereon.....	<u>1,867,904 85</u>
Total risks in force Dec. 31, 1888.....	<u>\$266,354,484 00</u>
Total premiums received from commencement to date.....	<u>\$23,468,979 00</u>
Total losses paid from commencement to date.....	<u>13,302,801 00</u>
Excess of premiums over losses .....	\$10,166,178 00

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,377,474 00
Premiums received.....	32,002 43

*Losses Paid.*

Fire .....	\$25,381 26
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*Losses Incurred.*

Fire .....	\$25,375 62
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## FRANKLIN INSURANCE COMPANY.

Principal Office.....Columbus, Ohio

(Organized in 1864.)

P. W. HUNTINGTON, *President.*

HENRY O'KANE, *Secretary.*

Attorney to accept service in Minnesota, JOHN ROGERS, JR., St. Paul.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Value of real estate owned.....	\$4,650 00
Loans secured by mortgages on real estate.....	58,161 95
Market value of bonds and stocks.....	250,340 00
Cash on hand and in bank.....	32,114 29
Premiums in course of collection.....	34,547 75
All other assets.....	<u>1,416 22</u>
Total admitted assets.....	<u>\$381,230 21</u>

## ASSETS NOT ADMITTED.

Bills receivable for fire premiums.....	\$244 70
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## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance.....	120,743 84
Unpaid losses.....	2,608 43
Other liabilities.....	4,567 75
Total liabilities, including capital.....	\$327,920 02
Net surplus.....	\$53,310 19

## III. INCOME IN 1888.

From premiums received.....	\$166,142 47
From interests and dividends.....	12,931 41
From rents and all other sources.....	2,964 30
Total income.....	\$182,038 18
Excess of income over expenditures.....	\$8,916 92

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$102,491 43
Dividends.....	14,050 00
Commissions and brokerage.....	32,575 00
Salaries of officers and employes.....	12,388 09
Taxes.....	4,976 09
All other expenditures.....	11,690 65
Total expenditures.....	\$178,121 26

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$17,525,145 00
Premiums received thereon .....	194,798 24
Total risks in force Dec. 31, 1888. ....	\$21,699,572 00
Total premiums received from commencement to date.....	\$1,211,037 47
Total losses paid from commencement to date.....	539,773 42
Excess of premiums over losses.....	\$671,264 05

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$250,325 00
Premiums received.....	4,560 81

*Losses Paid.*

Fire.....	\$8,704 56
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*Losses Incurred.*

Fire.....	\$8,767 06
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## FRANKLIN FIRE INSURANCE COMPANY.

Principal Office..... Philadelphia, Pa.

(Organized in 1829.)

J. W. M'ALLISTER, *President*,E. T. CRESSON, *Secretary*.

Attorney to accept service in Minnesota, JAS. H. WEED, St. Paul.

CASH CAPITAL, \$400,000.

## I. ASSETS.

Value of real estate owned.....	\$322,150 00
Loans secured by mortgages on real estate.....	680,522 36
Market value of bonds and stocks.....	1,098,466 00
Loans secured by bonds and stocks as collateral.....	849,000 00
Cash on hand and in bank.....	201,288 50
Premiums in course of collection.....	49,890 45
All other assets.....	1,485 18
Total admitted assets.....	\$3,202,802 49

## II. LIABILITIES.

Capital stock paid up.....	\$400,000 00
Reserved for reinsurance.....	1,774,266 37
Unpaid losses.....	55,436 98
Other liabilities.....	7,778 59
Total liabilities, including capital.....	\$2,237,476 94
Net surplus.....	\$965,325 55

## III. INCOME IN 1888.

From premiums received.....	\$481,297 92
From interests and dividends.....	129,419 20
From rents and all other sources.....	12,927 13
Total income.....	\$623,644 25
Excess of income over expenditures.....	\$33,617 86

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$266,211 84
Dividends.....	90,035 00
Commissions and brokerage.....	82,343 81
Salaries of officers and employes.....	55,125 89
Taxes.....	23,808 70
All other expenditures.....	72,501 15
Total expenditures.....	\$590,026 39

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$52,034,590 00
Premiums received thereon.....	570,358 12
Total risks in force Dec. 31, 1888.....	\$137,265,205 00
Total premiums received from commencement to date.....	\$26,020,583 51
Total losses paid from commencement to date.....	14,125,813 74
Excess of premiums over losses.....	\$11,894,769 77

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,094,341 00
Premiums received.....	16,477 92

*Losses Paid.*

Fire.....	\$7,402 80
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*Losses Incurred.*

Fire.....	\$7,027 38
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## FIREMANS FUND INSURANCE COMPANY.

Principal Office.....San Francisco, Cal.

(Organized in 1863.)

D. J. STAPLES, *President.*

W. J. DUTTON, *Secretary.*

Attorney to accept service in Minnesota, C. W. SEXTON, Minneapolis.

CASH CAPITAL, \$1,000,000.

## I. ASSETS.

Value of real estate owned.....	\$300,000 00
Loans secured by mortgages on real estate.....	278,196 71
Market value of bonds and stocks.....	966,540 00
Loans secured by bonds and stocks as collateral.....	351,550 00
Cash on hand and in bank.....	133,136 24
Premiums in course of collection.....	200,362 56
All other assets.....	84,990 80
Total admitted assets.....	\$2,314,776 31

## II. LIABILITIES.

Capital stock paid up.....	\$1,000,000 00
Reserved for reinsurance.....	772,244 25
Unpaid losses.....	68,983 53
Other liabilities.....	41,461 37
Total liabilities, including capital.....	\$1,882,689 15
Net surplus.....	\$432,087 16

## III. INCOME IN 1888.

From premiums received.....	\$1,115,137 23
From interests and dividends.....	82,899 00
From rents and all other sources.....	20,438 22
Total income.....	\$1,218,474 45
Excess of income over expenditures.....	\$105,548 20

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$614,921 45
Dividends.....	120,000 00
Commissions and brokerage.....	147,561 98
Salaries of officers and employes.....	104,577 37
Taxes.....	16,107 21
All other expenditures.....	112,758 24
Total expenditures.....	<u>\$1,112,926 25</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$95,016,180 00
Premiums received thereon.....	1,290,389 86
Marine and inland risks written in 1888.....	16,141,219 00
Premiums received thereon.....	322,155 11
Total risks in force Dec. 31, 1888.....	<u>\$96,938,109 00</u>
Total premiums received from commencement to date.....	\$16,069,541 26
Total losses paid from commencement to date.....	8,183,285 59
Excess of premiums over losses.....	<u>\$7,886,255 67</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$3,001,648 39
Premiums received.....	40,553 20

*Losses Paid.*

Fire.....	\$34,402 78
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*Losses Incurred.*

Fire.....	\$25,129 39
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## FIRE INSURANCE COMPANY OF THE COUNTY OF PHILADELPHIA.

Principal Office.....Philadelphia, Pa.

(Organized in 1832.)

JAMES N. STONE, *President.*

CHAS. R. PECK, *Secretary.*

Attorney to accept service in Minnesota, J. C. STOUT, St. Paul.

CASH CAPITAL, \$400,000.

## I. ASSETS.

Value of real estate owned.....	\$53,000 00
Loans secured by mortgages on real estate.....	262,274 79
Market value of bonds and stocks.....	394,185 00
Loans secured by bonds and stocks as collateral.....	51,900 00
Cash on hand and in bank.....	23,535 04
Premiums in course of collection.....	19,464 75
All other assets.....	2,147 12
Total admitted assets.....	<u>\$806,506 70</u>

## II. LIABILITIES.

Capital stock paid up.....	\$400,000 00
Reserved for reinsurance .....	233,449 39
Unpaid losses.....	12,178 40
Other liabilities.....	5,494 27
Total liabilities, including capital.....	<u>\$651,122 06</u>
Net surplus.....	<u>\$155,384 64</u>

## III. INCOME IN 1888.

From premiums received.....	\$167,217 03
From interests and dividends.....	36,340 33
From rents and all other sources.....	6,094 27
Total income.....	<u>\$209,651 63</u>
Excess of income over expenditures.....	<u>\$28,541 25</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$99,206 39
Dividends.....	23,546 00
Commissions and brokerage.....	34,027 92
Salaries of officers and employes.....	7,549 96
Taxes.....	5,550 94
All other expenditures.....	10,829 17
Total expenditures.....	<u>\$181,110 38</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$17,072,599 00
Premiums received thereon.....	199,019 62
Total risks in force Dec. 31, 1888.....	<u>\$15,622,251 00</u>
Total premiums received from commencement to date.....	\$1,352,112 00
Total losses paid from commencement to date.....	821,684 82
Excess of premiums over losses.....	<u>\$530,427 18</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written .....	\$595,477 00
Premiums received.....	11,905 96

*Losses Paid.*

Fire.....	\$7,677 74
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*Losses Incurred.*

Fire.....	\$6,786 10
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## GERMAN INSURANCE COMPANY.

Principal Office.....Freeport, Ill.

(Organized in 1865.)

M. HETTINGER, *President*.F. GUND, *Secretary*.

Attorney to accept service in Minnesota, A. R. MCGILL, St. Paul.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Value of real estate owned.....	\$17,000 00
Loans secured by mortgages on real estate.....	1,264,665 57
Market value of bonds and stocks.....	275,795 00
Loans secured by bonds and stocks as collateral.....	59,955 50
Cash on hand and in bank.....	220,167 59
Premiums in course of collection.....	131,731 17
All other assets.....	4,335 00
Total admitted assets.....	\$1,978,649 83

## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance.....	1,313,704 06
Unpaid losses.....	85,483 00
Other liabilities.....	24,591 72
Total liabilities, including capital.....	\$1,623,778 78
Net surplus.....	\$349,871 05

## III. INCOME IN 1888.

From premiums received.....	\$1,241,527 03
From interests and dividends.....	115,826 86
From rents and all other sources.....	3,392 34
Total income.....	1,360,746 23
Excess of income over expenditures.....	\$129,401 98

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$687,696 56
Dividends.....	40,000 00
Commissions and brokerage.....	357,323 26
Salaries of officers and employees.....	108,784 18
Taxes.....	20,343 97
All other expenditures.....	17,196 28
Total expenditures.....	\$1,231,344 25

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$74,904,883 00
Premiums received thereon.....	1,144,479 16
Total risks in force Dec. 31, 1888.....	\$146,266,854 00
Total premiums received from commencement to date.....	\$10,158,615 30
Total losses paid from commencement to date.....	\$4,308,183 35
Excess of premiums over losses.....	\$5,850,431 95

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$3, 294, 863 00
Premiums received.....	52, 666 00

*Losses Paid.*

Fire.....	\$38, 551 94
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*Losses Incurred.*

Fire.....	\$39, 851 94
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## GERMAN FIRE INSURANCE COMPANY.

Principal Office..... Peoria, Ill.

(Organized in 1876.)

P. CREMER, *President.*

T. J. MULLER, *Secretary.*

Attorney to accept service in Minnesota, A. N. NELSON, St. Paul.

CASH CAPITAL, \$300, 000.

## I. ASSETS.

Value of real estate owned.....	\$6, 000 00
Loans secured by mortgages on real estate.....	261, 085 71
Market value of bonds and stocks.....	5, 000 00
Loans secured by bonds and stocks as collateral.....	17, 740 82
Cash on hand and in bank.....	83, 755 99
Premiums in course of collection.....	39, 037 98
All other assets.....	7, 055 45
Total admitted assets.....	\$419, 675 95

## ASSETS NOT ADMITTED.

Bills receivable for fire premiums.....	\$6, 633 55
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## II. LIABILITIES.

Capital stock paid up.....	\$300, 000 00
Reserved for reinsurance.....	95, 291 07
Unpaid losses.....	19, 654 30
Other liabilities.....	1, 017 60
Total liabilities, including capital.....	\$415, 962 97
Net surplus.....	\$3, 712 98

## III. INCOME IN 1888.

From premiums received.....	\$210, 401 76
From interests and dividends.....	20, 373 23
From rents and all other sources.....	180 93
Total income.....	\$230, 955 92

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$133,654 91
Dividends.....	24,000 00
Commissions and brokerage.....	52,452 52
Salaries of officers and employes.....	23,226 96
Taxes.....	4,211 41
Total expenditures.....	<u>\$237,545 80</u>
Excess of expenditures over income.....	\$6,589 88

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$19,377,490 00
Premiums received thereon.....	302,341 20
Total risks in force Dec. 31, 1888.....	<u>\$15,651,766 00</u>
Total premiums received from commencement to date.....	\$1,652,420 75
Total losses paid from commencement to date.....	682,494 31
Excess of premiums over losses.....	<u>\$969,926 44</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,074,314 00
Premiums received.....	17,065 82

*Losses Paid.*

Fire.....	\$7,628 84
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*Losses Incurred.*

Fire.....	\$10,532 80
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## GERMAN FIRE INSURANCE COMPANY.

Principal Office.....Pittsburgh, Pa.

(Organized in 1862.)

C. BARCHFIELD *President.*

F. L. GROSS, *Secretary.*

Attorney to accept service in Minnesota M. D. MILLER, St. Paul.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Value of real estate owned.....	\$46,480 22
Loans secured by mortgages on real estate .....	207,399 44
Market value of bonds and stocks.....	145,281 38
Loans secured by bonds and stocks as collateral.....	8,000 00
Cash on hand and in bank.....	23,318 09
Premiums in course of collection.....	18,854 55
All other assets.....	897 50
Total admitted assets.....	<u>\$450,231 18</u>

## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance.....	158,985 44
Unpaid losses.....	10,606 58
Other liabilities.....	1,000 00
Total liabilities, including capital.....	<u>\$370,592 02</u>
Net surplus.....	\$79,689 16

## III. INCOME IN 1888.

From premiums received.....	\$195,946 85
From interests and dividends.....	21,119 80
From rents and all other sources .....	360 50
Total income.....	<u>\$217,427 15</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$148,739 58
Dividends.....	20,000 00
Commissions and brokerage.....	41,222 16
Salaries of officers and employes.....	21,230 07
Taxes.....	6,903 81
All other expenditures.....	299 33
Total expenditures.....	<u>\$238,394 45</u>
Excess of expenditures over income.....	\$20,967 30

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$19,562,976 00
Premiums received thereon.....	230,182 13
Total risks in force Dec. 31, 1888.....	<u>\$26,064,125 00</u>
Total premiums received from commencement to date.....	\$2,808,205 04
Total losses paid from commencement to date.....	1,220,458 68
Excess of premiums over losses.....	<u>\$1,587,746 36</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$666,507 00
Premiums received.....	9,906 72

*Losses Paid.*

Fire.....	\$7,758 50
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*Losses Incurred.*

Fire.....	\$6,159 36
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## GERMANIA FIRE INSURANCE COMPANY.

Principal Office..... New York City.

(Organized in 1859.)

RUDOLPH GARRIGUE, *President.*HUGO SCHUMANN, *Secretary.*

Attorney to accept service in Minnesota, J. H. WEED, St. Paul.

CASH CAPITAL, \$1,000,000.

## I. ASSETS.

Value of real estate owned.....	\$580,000 00
Loans secured by mortgages on real estate.....	86,680 00
Market value of bonds and stocks.....	1,960,675 00
Loans secured by bonds and stocks as collateral.....	6,500 00
Cash on hand and in bank.....	42,325 33
Premiums in course of collection.....	117,901 74
All other assets.....	14,636 60
Total admitted assets.....	\$2,808,718 67

## II. LIABILITIES.

Capital stock paid up.....	\$1,000,000 00
Reserved for reinsurance.....	1,015,054 80
Unpaid losses.....	67,219 29
Total liabilities, including capital.....	\$2,082,273 59
Net surplus.....	\$726,445 08

## III. INCOME IN 1888.

From premiums received.....	\$1,197,700 82
From interests and dividends.....	114,900 10
Total income.....	\$1,312,600 42
Excess of income over expenditures.....	\$126,297 52

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$682,584 79
Dividends.....	100,000 00
Commissions and brokerage.....	171,526 86
Salaries of officers and employes.....	85,758 47
Taxes.....	24,350 64
All other expenditures.....	172,082 14
Total expenditures.....	\$1,186,302 90

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$176,519,853 00
Premiums received thereon.....	1,543,314 48
Total risks in force Dec. 31, 1888.....	\$211,259,512 26
Total premiums received from commencement to date.....	\$21,629,827 71
Total losses paid from commencement to date.....	10,792,767 04
Excess of premiums over losses.....	\$10,837,060 67

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$2,714,944 00
Premiums received.....	35,790 54

*Losses Paid.*

Fire.....	\$21,980 14
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*Losses Incurred.*

Fire.....	\$21,217 10
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## GERMAN AMERICAN INSURANCE COMPANY.

Principal Office.....New York City.

(Organized in 1872.)

EMIL OLBERMANN, *President.*

J. A. SILVEY, *Secretary.*

Attorney to accept service in Minnesota, C. H. BIGELOW, St. Paul.

CASH CAPITAL, \$1,000,000.

## I. ASSETS.

Market value of bonds and stocks.....	\$4,918,169 00
Cash on hand and in bank.....	235,953 23
Premiums in course of collection.....	233,860 36
All other assets.....	550 00
Total admitted assets .....	\$5,388,532 59

## II. LIABILITIES.

Capital stock paid up.....	\$1,000,000 00
Reserved for reinsurance .....	1,890,354 32
Unpaid losses.....	198,764 92
Other liabilities.....	55,427 87
Total liabilities, including capital.....	\$3,144,547 11
Net surplus.....	\$2,243,985 48

## III. INCOME IN 1888.

From premiums received.....	\$2,339,555 30
From interests and dividends.....	209,817 00
Total income.....	\$2,549,372 30

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$1,476,852 75
Dividends .....	200,000 00
Commissions and brokerage.....	378,967 18
Salaries of officers and employes.....	185,594 06
Taxes .....	59,749 57
All other expenditures.....	252,453 96
Total expenditures.....	\$2,553,617 52
Excess of expenditures over income.....	\$4,245 22

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$379, 116, 423 00
Premiums received thereon.....	3, 142, 081 96
Total risks in force Dec. 31, 1888.....	<u>\$478, 309, 249 00</u>
Total premiums received from commencement to date.....	24, 112, 937 58
Total losses paid from commencement to date.....	11, 808, 115 65
Excess of premiums over losses.....	<u>\$12, 304, 821 93</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$4, 020, 898 00
Premiums received.....	67, 385 87

*Losses Paid.*

Fire .....	\$38, 623 27
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*Losses Incurred.*

Fire .....	\$37, 147 10
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## GERMAN INSURANCE &amp; SAVINGS INSTITUTION.

Principal Office.....Quincy, Ill.

(Organized in 1859.)

HENRY F. J. RICKER, *President.*

A. H. HEINE, *Secretary.*

Attorney to accept service in Minnesota, M. D. MILLER, St. Paul.

CASH CAPITAL, \$223,800.

## I. ASSETS.

Value of real estate owned.....	\$41, 000 00
Loans secured by mortgages on real estate.....	193, 748 60
Loans secured by bonds and stocks as collateral.....	20, 725 00
Cash on hand and in bank.....	10, 355 32
Premiums in course of collection.....	1, 387 80
All other assets.....	412 16
Total admitted assets.....	<u>\$267, 628 88</u>

## II. LIABILITIES.

Capital stock paid up.....	\$223, 800 00
Reserve for reinsurance.....	13, 181 74
Other liabilities.....	4, 070 01
Total liabilities, including capital.....	<u>\$241, 051 75</u>
Net surplus.....	<u>\$26, 577 13</u>

## III. INCOME IN 1888.

From premiums received.....	\$13,388 06
From interests and dividends.....	15,565 69
From rents and all other sources.....	2,244 50
Total income.....	<u>\$31,198 25</u>
Excess of income over expenditures.....	\$5,294 98

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$16,993 68
Commissions and brokerage.....	1,431 68
Salaries of officers and employes.....	2,009 00
Taxes.....	3,962 90
All other expenditures.....	1,506 01
Total expenditures.....	<u>\$25,903 27</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$1,198,003 00
Premiums received thereon.....	14,979 13
Total risks in force Dec. 31, 1888.....	<u>\$2,157,345 00</u>
Total premiums received from commencement to date.....	\$462,100 98
Total losses paid from commencement to date.....	208,233 70
Excess of premiums over losses.....	<u>\$253,867 28</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$180,720 00
Premiums received.....	2,085 90

*Losses Paid.*

Fire.....	\$2,442 95
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*Losses Incurred.*

Fire.....	\$2,242 95
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## GIRARD FIRE AND MARINE INSURANCE COMPANY.

Principal Office.....Philadelphia, Pa.

(Organized in 1853.)

A. S. GILLET, *President.*

E. F. MERRILL, *Secretary.*

Attorney to accept service in Minnesota, C. H. BIGELOW, St. Paul.

CASH CAPITAL, \$300,000.

## I. ASSETS.

Value of real estate owned.....	\$296,000 00
Loans secured by mortgages on real estate.....	650,352 00
Market value of bonds and stocks.....	369,960 84
Loans secured by bonds and stocks as collateral.....	20,600 00
Cash on hand and in bank.....	82,284 33
Premiums in course of collection.....	37,656 80
All other assets.....	4,704 78
Total admitted assets.....	<u>\$1,461,558 75</u>



## II. LIABILITIES.

Capital stock paid up.....	\$300,000 00
Reserved for reinsurance.....	499,846 83
Unpaid losses.....	24,998 06
Other liabilities.....	12,004 53
Total liabilities, including capital.....	<u>\$836,849 42</u>
Net surplus.....	\$624,709 33

## III. INCOME IN 1888.

From premiums received.....	\$879,277 43
From interests and dividends.....	52,414 77
From rents and all other sources.....	8,248 54
Total income.....	<u>\$439,940 74</u>
Excess of income over expenditures.....	\$43,669 99

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$166,093 59
Dividends.....	75,000 00
Commissions and brokerage.....	72,310 75
Salaries of officers and employes.....	46,440 25
Taxes.....	11,486 01
All other expenditures.....	24,940 15
Total expenditures.....	<u>\$396,270 75</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$40,592,786 00
Premiums received thereon.....	421,003 97
Total risks in force Dec. 31, 1888.....	<u>\$61,833,591 00</u>
Total premiums received from commencement to date.....	\$8,068,886 00
Total losses paid from commencement to date.....	3,408,046 00
Excess of premiums over losses.....	<u>\$4,660,840 00</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$836,306 00
Premiums received.....	12,316 71

*Losses Paid.*

Fire .....	\$4,636 42
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*Losses Incurred.*

Fire.....	\$4,636 42
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## GLENS FALLS INSURANCE COMPANY.

Principal Office.....Glens Falls, N. Y.

(Organized in 1849.)

R. M. LITTLE, *President.*J. L. CUNNINGHAM, *Secretary.*

Attorney to accept service in Minnesota, C. H. BIGELOW, St. Paul.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Value of real estate owned.....	\$13,000 00
Loans secured by mortgages on real estate.....	652,688 62
Market value of bonds and stocks .....	772,210 00
Loans secured by bonds and stocks as collateral.....	3,000 00
Cash on hand and in bank.....	184,546 72
Premiums in course of collection.....	49,450 22
Total admitted assets.....	\$1,674,895 56

## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance.....	516,012 59
Unpaid losses.....	26,561 18
Other liabilities.....	17,417 53
Total liabilities, including capital.....	\$759,991 30
Net surplus.....	\$914,904 26

## III. INCOME IN 1888.

From premiums received.....	\$489,756 12
From interests and dividends.....	78,043 84
From rents and all other sources.....	350 00
Total income.....	\$568,149 96
Excess of income over expenditures.....	\$75,645 35

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$284,665 55
Dividends.....	20,000 00
Commissions and brokerage.....	98,449 12
Salaries of officers and employes.....	39,848 49
Taxes.....	11,243 28
All other expenditures.....	38,298 07
Total expenditures.....	\$492,504 51

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$60,848,752 00
Premiums received thereon.....	605,588 72
Total risks in force Dec. 31, 1888.....	\$102,488,619 00
Total premiums received from commencement to date.....	\$8,652,575 66
Total losses paid from commencement to date.....	4,564,063 50
Excess of premiums over losses.....	\$4,088,512 16

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$762,481 00
Premiums received.....	6,186 35

*Losses Paid.*

Fire .....	\$1,882 81
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*Losses Incurred.*

Fire.....	\$1,882 81
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## GRAND RAPIDS FIRE INSURANCE COMPANY.

Principal Office.....Grand Rapids, Mich.

(Organized in 1882.)

JULIUS HOUSEMAN, *President.*

S. F. ASPINWALL, *Secretary.*

Attorney to accept service in Minnesota, O. L. TAYLOR, St. Paul.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Value of real estate owned.....	\$3,200 00
Loans secured by mortgages on real estate.....	171,322 50
Market value of bonds and stocks.....	25,450 00
Loans secured by bonds and stocks as collateral.....	70,200 00
Cash on hand and in bank.....	20,042 75
Premiums in course of collection.....	8,030 55
All other assets.....	1,981 50
Total admitted assets.....	\$300,227 30

## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance.....	56,594 14
Unpaid losses.....	7,650 00
Total liabilities, including capital.....	\$264,244 14
Net surplus.....	\$35,983 16

## III. INCOME IN 1888.

From premiums received.....	\$108,140 08
From interests and dividends .....	15,099 64
Total income.....	\$123,239 72
Excess of income over expenditures.....	\$23,990 60

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$54,518 73
Dividends.....	10,000 00
Commissions and brokerage.....	23,153 92
Salaries of officers and employes.....	6,015 00
Taxes.....	2,178 97
All other expenditures.....	3,382 50
Total expenditures.....	\$99,249 12

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$9,521,326 00
Premiums received thereon.....	126,278 43
Total risks in force Dec. 31, 1888.....	\$8,278,330 00
Total premiums received from commencement to date.....	\$417,586 67
Total losses paid from commencement to date.....	177,325 86
Excess of premiums over losses.....	\$240,260 81

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$176,086 00
Premiums received.....	3,804 99

*Losses Paid.*

Fire.....	\$674 72
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*Losses Incurred.*

Fire.....	\$724 72
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## GREENWICH INSURANCE COMPANY.

Principal Office.....New York City.

(Organized in 1834.)

S. C. HARRIOT, *President.*

MASON A. STONE, *Secretary.*

Attorney to accept service in Minnesota, A. R. MCGILL, St. Paul.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Value of real estate owned.....	\$170,000 00
Loans secured by mortgages on real estate.....	18,328 00
Market value of bonds and stocks.....	963,027 50
Loans secured by bonds and stocks as collateral.....	73,850 00
Cash on hand and in bank.....	65,799 44
Premiums in course of collection.....	109,677 80
All other assets.....	5,128 57
Total admitted assets.....	\$1,405,811 31



## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance.....	571,688 80
Unpaid losses.....	191,380 45
Other liabilities.....	27,000 00
Total liabilities, including capital.....	<u>\$990,069 25</u>
Net surplus.....	\$415,742 06

## III. INCOME IN 1888.

From premiums received.....	\$902,501 05
From interests and dividends.....	40,798 10
From rents and all other sources.....	11,690 08
Total income.....	<u>\$954,989 23</u>
Excess of income over expenditures.....	\$17,016 06

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$586,941 77
Dividends.....	20,000 00
Commissions and brokerage.....	223,002 32
Salaries of officers and employes.....	56,001 52
Taxes.....	8,833 32
All other expenditures.....	43,194 24
Total expenditures.....	<u>\$937,973 17</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$176,047,192 00
Premiums received thereon.....	804,924 99
Marine and inland risks written in 1888.....	104,988,909 00
Premiums received thereon.....	238,907 07
Total risks in force Dec. 31, 1888.....	<u>\$209,212,884 00</u>
Total premiums received from commencement to date.....	\$8,014,940 44
Total losses paid from commencement to date.....	4,842,401 52
Excess of premiums over losses.....	<u>\$3,172,538 92</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$35,433 00
Premiums received.....	341 02

*Inland.*

Risks written.....	\$455,700 00
Premiums received.....	2,181 93

*Losses Paid.*

Inland.....	\$135 31
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*Losses Incurred.*

Inland.....	\$70 00
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## GUARDIAN FIRE INSURANCE COMPANY.

Principal Office..... New York.

(Organized in 1865.)

W. K. PAYE, *President*.J. C. STEVENS, *Secretary*.

Attorney to accept service in Minnesota, N. R. THOMPSON, Minneapolis.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Loans secured by mortgages on real estate.....	\$3,000 00
Market value of bonds and stocks.....	247,000 00
Cash on hand and in bank.....	7,845 16
Premiums in course of collection.....	5,075 21
<b>Total admitted assets.....</b>	<b>\$262,920 37</b>

## ASSETS NOT ADMITTED.

Bills receivable for fire premiums.....	\$3,749 11
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## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance.....	40,066 51
Unpaid losses.....	11,250 00
Other liabilities.....	31,465 00
<b>Total liabilities, including capital.....</b>	<b>\$282,781 51</b>
<b>Impairment.....</b>	<b>\$19,861 14</b>

## III. INCOME IN 1888.

From premiums received.....	\$52,027 13
From interests and dividends.....	8,380 00
From rents and all other sources.....	1,201 67
<b>Total income.....</b>	<b>\$61,608 80</b>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$57,983 57
Commissions and brokerage.....	6,504 11
Salaries of officers and employes.....	9,503 94
Taxes.....	848 27
All other expenditures.....	8,123 95
<b>Total expenditures.....</b>	<b>\$82,963 84</b>
<b>Excess of expenditures over income.....</b>	<b>\$21,355 04</b>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$8,642,160 00
Premiums received thereon.....	61,336 51
<b>Total risks in force Dec. 31, 1888.....</b>	<b>\$9,056,493 00</b>
<b>Total premiums received from commencement to date.....</b>	<b>\$1,793,986 80</b>
<b>Total losses paid from commencement to date.....</b>	<b>1,103,380 00</b>
<b>Excess of premiums over losses.....</b>	<b>\$690,606 80</b>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$310,778 00
Premiums received.....	4,699 00

*Losses Paid.*

Fire.....	\$2,438 95
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*Losses Incurred.*

Fire.....	\$2,438 95
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**HANOVER FIRE INSURANCE COMPANY.**

Principal Office..... New York City.

(Organized in 1852.)

B. S. WALCOTT, *President.*

I. R. LANE, *Secretary.*

Attorney to accept service in Minnesota, J. H. WEED, St. Paul.

CASH CAPITAL, \$1,000,000.

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**I. ASSETS.**

Loans secured by mortgages on real estate.....	\$88,367 50
Market value of bonds and stocks.....	2,176,702 50
Loans secured by bonds and stocks as collateral.....	300 00
Cash on hand and in bank.....	83,097 06
Premiums in course of collection.....	140,785 31
All other assets.....	14,129 22
Total admitted assets.....	\$2,503,381 59

**II. LIABILITIES.**

Capital stock paid up.....	\$1,000,000 00
Reserved for reinsurance.....	905,572 43
Unpaid losses.....	107,551 12
Other liabilities.....	27,704 33
Total liabilities, including capital.....	\$2,040,827 88
Net surplus.....	\$462,553 71

**III. INCOME IN 1888.**

From premiums received.....	\$1,248,015 41
From interests and dividends.....	91,431 89
Total income.....	\$1,339,447 30

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$736,369 85
Dividends.....	100,000 00
Commissions and brokerage.....	233,567 47
Salaries of officers and employes.....	142,820 46
Taxes.....	26,358 95
All other expenditures.....	108,444 51
Total expenditures.....	<u>\$1,347,561 24</u>
Excess of expenditures over income.....	\$8,113 94

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$165,287,207 00
Premiums received thereon.....	<u>1,406,660 00</u>
Total risks in force Dec. 31, 1888.....	<u>\$192,240,537 00</u>
Total premiums received from commencement to date.....	\$20,386,984 90
Total losses paid from commencement to date.....	<u>11,168,122 03</u>
Excess of premiums over losses.....	\$9,218,862 87

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,902,504 00
Premiums received.....	<u>31,128 87</u>

*Losses Paid.*

Fire.....	<u>\$23,882 24</u>
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*Losses Incurred.*

Fire.....	<u>\$21,313 62</u>
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## HARTFORD FIRE INSURANCE COMPANY.

Principal Office.....Hartford, Conn.

(Organized in 1810.)

G. L. CHASE, *President.*

P. C. ROYCE, *Secretary.*

Attorney to accept service in Minnesota, HUGHSON & HEMENWAY, St. Paul.

CASH CAPITAL, \$1,250,000.

## I. ASSETS.

Value of real estate owned.....	\$543 675 60
Loans secured by mortgages on real estate.....	1,202,623 58
Market value of bonds and stocks.....	<u>2,912,716 00</u>
Loans secured by bonds and stocks as collateral.....	53,500 00
Cash on hand and in bank.....	634 201 67
Premiums in course of collection.....	384,652 90
All other assets.....	<u>18,710 72</u>
Total admitted assets.....	<u>\$5,750,080 47</u>



## II. LIABILITIES.

Capital stock paid up.....	\$1,250,000 00
Reserved for reinsurance.....	2,014,565 44
Unpaid losses.....	217,032 44
Other liabilities.....	34,500 00
Total liabilities, including capital.....	<u>\$3,516,097 88</u>
Net surplus.....	\$2,233,982 59

## III. INCOME IN 1888.

From premiums received.....	\$2,594,587 57
From interests and dividends.....	230,331 58
From rents and all other sources.....	22,795 47
Total income.....	<u>\$2,847,714 62</u>
Excess of income over expenditures.....	\$417,067 83

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$1,338,503 56
Dividends.....	250,000 00
Commissions and brokerage.....	410,545 75
Salaries of officers and employes.....	185,149 37
Taxes.....	52,193 49
All other expenditures.....	194,254 62
Total expenditures.....	<u>\$2,430,646 79</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$229,181,305 00
Premiums received thereon.....	2,957,260 92
Total risks in force Dec. 31, 1888.....	<u>\$309,651,199 00</u>
Total premiums received from commencement to date.....	\$55,433,336 41
Total losses paid from commencement to date.....	34,050,525 35
Excess of premiums over losses.....	<u>\$21,382,811 06</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$5,046,894 00
Premiums received.....	75,611 21

*Losses Paid.*

Fire.....	\$35,232 49
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*Losses Incurred.*

Fire.....	\$36,144 99
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## HEKLA FIRE INSURANCE COMPANY.

Principal Office.....Madison, Wis.

(Organized in 1871.)

HALLE STEENSLAND, *President.*WM. R. FREEMAN, *Secretary.*

Attorney to accept service in Minnesota, O. H. SWERIG, St. Paul.

CASH CAPITAL, \$300,000.

## I. ASSETS.

Value of real estate owned.....	\$15,095 00
Loans secured by mortgages on real estate.....	360,711 00
Loans secured by bonds and stocks as collateral.....	5,900 00
Cash on hand and in bank.....	61,115 62
Premiums in course of collection.....	15,380 27
All other assets.....	1,474 02
Total admitted assets.....	<u>\$459,675 91</u>

## ASSETS NOT ADMITTED.

Bills receivable for fire premiums.....	\$1,523 52
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## II. LIABILITIES.

Capital stock paid up.....	\$300,000 00
Reserved for reinsurance.....	105,354 05
Unpaid losses.....	7,935 57
Other liabilities.....	2,348 29
Total liabilities, including capital.....	<u>\$415,637 91</u>
Net surplus.....	<u>\$44,038 00</u>

## III. INCOME IN 1888.

From premiums received.....	\$113,324 40
From interests and dividends.....	28,360 47
Total income.....	<u>\$141,684 87</u>
Excess of income over expenditures.....	<u>\$20,826 33</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$74,081 49
Commissions and brokerage.....	24,926 17
Salaries of officers and employes.....	18,573 26
Taxes.....	3,277 62
Total expenditures.....	<u>\$120,858 54</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$6,587,481 00
Premiums received thereon.....	112,179 56
Total risks in force Dec. 31, 1888.....	<u>\$16,442,714 00</u>
Total premiums received from commencement to date.....	\$1,152,186 00
Total losses paid from commencement to date.....	701,295 15
Excess of premiums over losses.....	<u>\$450,890 85</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$750,769 00
Premiums received.....	14,189 38

*Losses Paid.*

Fire.....	\$11,774 81
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*Losses Incurred.*

Fire.....	\$11,294 00
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## HIBERNIA INSURANCE COMPANY.

Principal Office.....New Orleans, La.

(Organized in 1871.)

J. T. GIBBONS, *President.*

J. F. FITZPATRICK, *Secretary.*

Attorney to accept service in Minnesota, T. E. LOCKWOOD, Minneapolis.

CASH CAPITAL, \$400,000.

## I. ASSETS.

Value of real estate owned.....	\$164,300 00
Loans secured by mortgages on real estate .....	53,665 87
Market value of bonds and stocks.....	259,700 00
Loans secured by bonds and stocks as collateral.....	4,704 00
Cash on hand and in bank.....	17,851 13
Premiums in course of collection.....	50,211 40
All other assets.....	37,500 42
Total admitted assets.....	\$587,932 82

## II. LIABILITIES.

Capital stock paid up.....	\$400,000 00
Reserved for reinsurance.....	139,874 68
Unpaid losses.....	42,573 80
Other liabilities.....	503 00
Total liabilities, including capital.....	\$582,951 48
Net surplus.....	\$4,981 34

## III. INCOME IN 1888.

From premiums received.....	\$323,838 74
From interests and dividends.....	13,031 26
Total income.....	\$336,870 00
Excess of income over expenditures.....	\$94,752 31

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$194,931 18
Dividends.....	531 00
Commissions and brokerage.....	4,278 00
Salaries of officers and employes.....	11,530 00
Taxes.....	24,379 32
All other expenditures.....	6,468 19
Total expenditures.....	\$242,117 69

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$27,748,840 00
Premiums received thereon.....	363,371 68
Marine and inland risks written in 1888.....	1,857,115 00
Premiums received thereon.....	9,749 35
Total risks in force Dec. 31, 1888.....	\$22,259,118 00
Total premiums received from commencement to date.....	\$3,321,806 39
Total losses paid from commencement to date.....	1,495,343 09
Excess of premiums over losses.....	\$1,826,463 30

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$447,793 00
Premiums received.....	10,680 00

*Losses Paid.*

Fire.....	\$6,207 00
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*Losses Incurred.*

Fire.....	\$5,147 00
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## HOME INSURANCE COMPANY.

Principal Office.....	New York City.
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(Organized in 1853.)

DANIEL A. HEALD, *President.* W. L. BIGELOW AND T. B. GREENE, *Secretaries.*

Attorney to accept service in Minnesota, E. E. HUGHSON, St. Paul.

CASH CAPITAL, \$3,000,000.

## I. ASSETS.

Value of real estate owned.....	\$1,345,675 14
Loans secured by mortgages on real estate.....	714,377 60
Market value of bonds and stocks.....	5,609,849 89
Loans secured by bonds and stocks as collateral.....	239,400 00
Cash on hand and in bank.....	359,833 26
Premiums in course of collection.....	604,748 75
All other assets.....	66,021 23
Total admitted assets.....	\$8,939,905 87



## INSURANCE COMMISSIONER.

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## ASSETS NOT ADMITTED.

Bills receivable for fire premiums.....	\$21,751 40
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## II. LIABILITIES.

Capital stock paid up.....	\$3,000,000 00
Reserved for reinsurance.....	3,767,507 00
Unpaid losses.....	464,947 38
Other liabilities.....	226,740 28
Total liabilities, including capital .....	<u>\$7,459,194 66</u>
Net surplus .....	\$1,480,711 21

## III. INCOME IN 1888.

From premiums received.....	\$4,337,771 95
From interests and dividends.....	218,121 73
From rents and all other sources .....	91,131 26
Total income.....	<u>\$4,647,024 94</u>
Excess of income over expenditures.....	\$473,404 62

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$2,358,790 10
Dividends.....	299,800 00
Commissions and brokerage.....	800,593 01
Salaries of officers and employes.....	374,732 68
Taxes.....	64,272 18
All other expenditures.....	275,432 35
Total expenditures.....	<u>\$4,173,620 32</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$609,653,189 00
Premiums received thereon.....	5,174,373 61
Marine and inland risks written in 1888.....	2,029,213 00
Premiums received thereon.....	37,425 62
Total risks in force Dec. 31, 1888.....	<u>\$734,370,569 00</u>
Total premiums received from commencement to date.....	\$73,510,906 08
Total losses paid from commencement to date.....	46,405,520 17
Excess of premiums over losses.....	<u>\$27,105,385 91</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written .....	\$9,979,967 00
Premiums received.....	116,897 92

*Losses Paid.*

Fire.....	\$65,626 29
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*Losses Incurred.*

Fire.....	\$67,660 30
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## INSURANCE COMPANY OF NORTH AMERICA.

Principal Office..... Philadelphia, Pa.

(Organized in 1794.)

CHARLES PLATT, *President.*G. E. FRYER, *Secretary.*

Attorney to accept service in Minnesota, S. S. EATON, St. Paul.

CASH CAPITAL, \$3,000,000.

## I. ASSETS.

Value of real estate owned.....	\$345,424 47
Loans secured by mortgages on real estate.....	2,861,170 53
Market value of bonds and stocks.....	4,456,267 00
Loans secured by bonds and stocks as collateral.....	61,890 00
Cash on hand and in bank.....	722,412 88
Premiums in course of collection.....	549,237 67
All other assets.....	194,594 01
Total admitted assets.....	\$8,690,996 56

## ASSETS NOT ADMITTED.

Company's own stock.....	\$5,960 00
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## II. LIABILITIES.

Capital stock paid up.....	\$3,000,000 00
Reserved for reinsurance.....	2,820,733 92
Unpaid losses.....	218,911 00
Other liabilities.....	18,404 99
Total liabilities, including capital.....	\$6,058,049 91
Net surplus.....	\$2,632,946 65

## III. INCOME IN 1888.

From premiums received.....	\$3,488,986 37
From interests and dividends.....	356,474 08
From rents and all other sources.....	47,326 71
Total income.....	\$3,892,787 16
Excess of income over expenditures.....	\$145,171 42

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$2,222,047 99
Dividends.....	450,000 00
Commissions and brokerage.....	560,747 11
Salaries of officers and employes.....	132,667 32
Taxes.....	101,224 54
All other expenditures.....	280,928 78
Total expenditures.....	\$3,747,615 74

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$277,314,149 00
Premiums received thereon.....	2,629,480 05
Marine and inland risks written in 1888.....	255,111,784 00
Premiums received thereon.....	1,675,116 35
Total risks in force Dec. 31, 1888.....	\$373,747,128 00
Total premiums received from commencement to date.....	\$85,518,620 68
Total losses paid from commencement to date.....	61,220,146 72
Excess of premiums over losses.....	\$24,298,473 96

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$4,028,337 00
Premiums received.....	87,764 15

*Inland.*

Risks written.....	\$6,500 00
Premiums received.....	19 95

*Losses Paid.*

Fire.....	\$42,905 78
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*Losses Incurred.*

Fire.....	\$42,469 99
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## INSURANCE COMPANY OF THE STATE OF PENNSYLVANIA.

Principal Office.....Philadelphia, Pa.

(Organized in 1794.)

G. G. CROWELL, *President.*

A. B. EARLE, *Secretary.*

Attorney to accept service in Minnesota, J. W. McCLUNG, St. Paul.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Value of real estate owned.....	\$228,800 00
Loans secured by mortgages on real estate.....	111,802 25
Market value of bonds and stocks.....	238,160 00
Loans secured by bonds and stocks as collateral.....	10,000 00
Cash on hand and in bank.....	46,665 78
Premiums in course of collection.....	20,702 41
All other assets.....	17,912 36
Total admitted assets.....	\$674,042 80

## ANNUAL REPORT

## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance .....	337,427 47
Unpaid losses.....	31,064 00
Other liabilities.....	2,183 00
Total liabilities, including capital.....	\$570,674 47
Net surplus.....	\$193,368 33

## III. INCOME IN 1888.

From premiums received.....	\$307,206 55
From interests and dividends .....	19,185 89
From rents and all other sources.....	21,049 30
Total income.....	\$347,441 74
Excess of income over expenditures.....	\$7,616 32

## IV. EXPENDITURES IN 1888.

Losses paid .....	\$187,819 32
Dividends .....	20,000 00
Commissions and brokerage.....	66,026 24
Salaries of officers and employes.....	16,666 29
Taxes.....	10,009 45
All other expenditures.....	39,304 12
Total expenditures.....	\$339,825 42

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$38,466,933 00
Premiums received thereon.....	365,293 46
Total risks in force Dec. 31, 1888.....	\$32,897,074 00
Total premiums received from commencement to date.....	\$18,483,907 73
Total losses paid from commencement to date.....	14,990,171 52
Excess of premiums over losses.....	\$3,493,736 21

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$819,789 00
Premiums received.....	9,564 95

*Losses Paid.*

Fire .....	\$5,942 09
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*Losses Incurred.*

Fire .....	\$5,802 16
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## JERSEY CITY INSURANCE COMPANY.

Principal Office.....Jersey City, N. J.

(Organized in 1847.)

NATHANIEL FOOTE, *President.*C. F. PATTERSON, *Secretary.*

Attorney to accept service in Minnesota, A. R. McGILL, St. Paul.

CASH CAPITAL, \$250,000.

## I. ASSETS.

Value of real estate owned.....	\$55,400 00
Loans secured by mortgages on real estate .....	171,743 13
Market value of bonds and stocks.....	114,130 00
Loans secured by bonds and stocks as collateral.....	44,200 00
Cash on hand and in bank.....	19,231 45
Premiums in course of collection.....	3,721 14
All other assets .....	2,182 84
Total admitted assets .....	<u>\$410,632 56</u>

## II. LIABILITIES.

Capital stock paid up .....	\$250,000 00
Reserved for reinsurance.....	76,758 66
Unpaid losses.....	10,685 23
Other liabilities.....	572 11
Total liabilities, including capital.....	<u>\$338,016 00</u>
Net surplus.....	<u>\$72,616 56</u>

## III. INCOME IN 1888.

From premiums received .....	\$98,950 63
From interests and dividends.....	17,852 44
From rents and all other sources .....	3,625 94
Total income.....	<u>\$120,429 01</u>
Excess of income over expenditures.....	<u>\$20,842 68</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$37,828 29
Dividends.....	15,750 00
Commissions and brokerage.....	21,975 99
Salaries of officers and employes.....	12,050 68
Taxes.....	3,248 45
All other expenditures .....	8,732 92
Total expenditures.....	<u>\$99,586 33</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$10,647,462 00
Premiums received thereon .....	105,816 30
Total risks in force Dec. 31, 1888.....	<u>\$16,097,253 00</u>
Total premiums received from commencement to date.....	<u>\$1,902,549 45</u>
Total losses paid from commencement to date.....	709,482 25
Excess of premiums over losses .....	<u>\$1,193,067 20</u>

## ANNUAL REPORT

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$328,945 00
Premiums received.....	4,584 44

*Losses Paid.*

Fire .....	\$2,531 10
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*Losses Incurred.*

Fire .....	\$2,560 97
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## LIBERTY INSURANCE COMPANY.

Principal Office.....New York City.

(Organized in 1887.)

G. A. MORRISON, *President.*

S. R. WEED, *Secretary.*

Attorney to accept service in Minnesota, CHAS. W. BUNN, St. Paul.

CASH CAPITAL, \$800,000.

## I. ASSETS.

Market value of bonds and stocks.....	\$952,500 00
Cash on hand and in bank.....	325,076 35
Premiums in course of collection.....	102,379 91
Total admitted assets.....	\$1,379,956 26

## II. LIABILITIES.

Capital stock paid up.....	\$800,000 00
Reserved for reinsurance.....	365,770 47
Unpaid losses.....	61,248 07
Other liabilities.....	37,529 56
Total liabilities, including capital .....	\$1,264,548 10
Net surplus.....	\$115,408 16

## III. INCOME IN 1888.

From premiums received.....	\$631,228 85
From interests and dividends.....	36,530 02
Total income.....	\$667,758 87
Excess of income over expenditures.....	124,958 14

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$287,188 37
Commissions and brokerage.....	119,880 47
Salaries of officers and employes.....	53,232 95
Taxes.....	8,421 95
All other expenditures.....	74,076 99
Total expenditures.....	\$542,800 73

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$91,479,632 00
Premiums received thereon.....	813,762 03
Total risks in force Dec. 31, 1888. ....	<u>\$67,420,378 00</u>
Total premiums received from commencement to date....	\$878,982 20
Total losses paid from commencement to date.....	342,834 91
Excess of premiums over losses.....	<u>\$536,147 29</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$728,140 00
Premiums received.....	21,475 03

*Losses Paid.*

Fire.....	\$4,877 00
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*Losses Incurred.*

Fire.....	\$6,298 00
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## LONG ISLAND INSURANCE COMPANY.

Principal Office.....Brooklyn, N. Y.

(Organized in 1833.)

JONATHAN OGDEN, *President.*

HENRY BLATCHFORD, *Secretary.*

Attorney to accept service in Minnesota, M. D. MILLER, St. Paul.

CASH CAPITAL, \$300,000.

## I. ASSETS.

Loans secured by mortgages on real estate.....	\$202,234 73
Market value of bonds and stocks.....	188,902 49
Cash on hand and in bank.....	68,349 88
Premiums in course of collection.....	6,414 08
All other assets.....	120 00
Total admitted assets.....	<u>\$466,021 18</u>

## II. LIABILITIES.

Capital stock paid up.....	\$300,000 00
Reserved for reinsurance.....	127,916 98
Unpaid losses.....	15,955 44
Other liabilities.....	2,700 00
Total liabilities, including capital.....	<u>\$446,572 42</u>
Net surplus.....	\$19,448 76

## ANNUAL REPORT

## III. INCOME IN 1888.

From premiums received.....	\$233,026 20
From interests and dividends .....	19,150 22
Total income.....	<u>\$252,176 42</u>
Excess of income over expenditures .....	<u>\$24,715 02</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$115,350 43
Dividends.....	9,000 00
Commissions and brokerage.....	57,917 61
Salaries of officers and employes.....	16,669 47
Taxes.....	1,240 51
All other expenditures .....	27,283 38
Total expenditures.....	<u>\$227,461 40</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$38,262,774 00
Premiums received thereon.....	269,435 39
Total risks in force Dec. 31, 1888.....	<u>\$37,465,514 00</u>
Total premiums received from commencement to date .....	\$4,088,143 26
Total losses paid from commencement to date.....	1,780,516 08
Excess of premiums over losses.....	<u>\$2,307,627 18</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$673,042 00
Premiums received.....	7,972 34

*Losses Paid.*

Fire.....	\$5,889 98
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*Losses Incurred.*

Fire.....	\$5,860 37
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# MANUFACTURERS AND BUILDERS FIRE INSURANCE COMPANY.

Principal Office.....New York City.

(Organized in 1870.)

E. V. LOEW, *President.*

J. J. NESTELL, *Secretary.*

Attorney to accept service in Minnesota, M. D. MILLER, St. Paul.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Loans secured by mortgages on real estate.....	\$103,260 75
Market value of bonds and stocks.....	309,895 50
Loans secured by bonds and stocks as collateral.....	23,300 00
Cash on hand and in bank.....	13,649 08
Premiums in course of collection.....	26,481 50
All other assets.....	1,113 86
Total admitted assets.....	<u>\$477,700 69</u>

## \*II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance.....	127,379 52
Unpaid losses.....	21,203 41
Other liabilities.....	9,328 56
Total liabilities, including capital.....	<u>\$357,911 49</u>
Net surplus.....	<u>\$119,789 20</u>

## III. INCOME IN 1888.

From premiums received.....	\$197,221 18
From interests and dividends.....	21,154 94
From rents and all other sources.....	6,316 68
Total income.....	<u>\$224,692 80</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$127,161 75
Dividends.....	13,033 00
Commissions and brokerage.....	50,839 62
Salaries of officers and employes.....	22,632 49
Taxes.....	4,175 30
All other expenditures.....	20,639 71
Total expenditures.....	<u>\$238,481 87</u>
Excess of expenditures over income.....	<u>\$13,789 07</u>

## ANNUAL REPORT

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$31,901,282 00
Premiums received thereon.....	233,297 82
Total risks in force Dec. 31, 1888.....	35,165,708 00
Total premiums received from commencement to date.....	\$2,368,178 70
Total losses paid from commencement to date.....	950,453 36
Excess of premiums over losses.....	\$1,417,724 71

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$908,650 00
Premiums received.....	12,212 83

*Losses Paid.*

Fire.....	\$3,098 04
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*Losses Incurred.*

Fire.....	\$4,858 63
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## MARINE INSURANCE COMPANY.

Principal Office.....	St. Louis, Mo.
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(Organized in 1837.)

JAMES A. BARTLETT, *President.*S. G. KENNEDY, *Secretary.*

Attorney to accept service in Minnesota, J. THOMPSON, JR., Minneapolis.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Value of real estate owned.....	\$2,000 00
Loans secured by mortgages on real estate.....	9,250 00
Market value of bonds and stocks.....	181,550 00
Loans secured by bonds and stocks as collateral.....	43,384 91
Cash on hand and in bank.....	11,736 03
Premiums in course of collection.....	4,370 81
All other assets.....	1,200 00
Total admitted assets.....	\$253,491 75

## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance.....	21,566 65
Unpaid losses.....	1,199 37
Other liabilities.....	7,055 90
Total liabilities, including capital.....	\$229,821 92
Net surplus.....	\$23,669 83

## III. INCOME IN 1888.

From premiums received.....	\$45,855 18
From interests and dividends.....	12,772 30
Total income.....	<u>\$58,627 48</u>
Excess of income over expenditures.....	\$7,865 94

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$21,823 44
Dividends.....	5,987 00
Commissions and brokerage.....	7,125 36
Salaries of officers and employes.....	7,250 00
Taxes.....	4,278 87
All other expenditures.....	<u>4,296 87</u>
Total expenditures.....	\$50,761 54

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$4,585,556 00
Premiums received thereon.....	45,680 86
Marine and inland risks written in 1888.....	1,837,661 00
Premiums received thereon.....	<u>13,200 63</u>
Total risks in force Dec. 31, 1888.....	\$4,218,427 00

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$254,617 00
Premiums received.....	4,132 24

*Losses Paid.*

Fire.....	\$1,116 40
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*Losses Incurred.*

Fire.....	\$1,116 40
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## MECHANICS INSURANCE COMPANY.

Principal Office.....Philadelphia, Pa.

(Organized in 1854.)

JAMES WOOD, *President*.S. J. MARTIN, *Secretary*.

Attorney to accept service in Minnesota, C. W. SEXTON, Minneapolis.

CASH CAPITAL, \$250,000.

## I. ASSETS.

Value of real estate owned.....	\$97,900 00
Loans secured by mortgages on real estate.....	243,728 94
Market value of bonds and stocks.....	207,830 00
Loans secured by bonds and stocks as collateral .....	70,000 00
Cash on hand and in bank.....	11,781 54
Premiums in course of collection.....	13,735 22
All other assets.....	3,493 47
Total admitted assets.....	\$648,469 17

## II. LIABILITIES.

Capital stock paid up.....	\$250,000 00
Reserved for reinsurance.....	240,081 38
Unpaid losses.....	14,812 79
Other liabilities.....	4,010 51
Total liabilities, including capital.....	\$508,904 68
Net surplus.....	\$139,564 49

## III. INCOME IN 1888.

From premiums received.....	\$138,044 59
From interests and dividends.....	25,186 45
From rents and all other sources.....	3,082 70
Total income.....	\$166,313 74
Excess of income over expenditures.....	\$14,164 71

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$79,626 97
Dividends.....	19,937 00
Commissions and brokerage.....	23,474 09
Salaries of officers and employes.....	6,038 26
Taxes.....	7,244 65
All other expenditures.....	15,828 06
Total expenditures.....	\$152,149 03

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$15,281,715 00
Premiums received thereon.....	158,436 80
Total risks in force Dec. 31, 1888.....	\$14,524,426 00
Total premiums received from commencement to date.....	\$1,137,080 98
Total losses paid from commencement to date.....	525,206 21
Excess of premiums over losses.....	\$611,874 77



## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$778,016 00
Premiums received.....	10,843 03

*Losses Paid.*

Fire.....	\$3,293 01
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*Losses Incurred.*

Fire.....	\$986 17
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## MERCANTILE INSURANCE COMPANY.

Principal Office..... Cleveland, Ohio

(Organized in 1871.)

W. J. GORDON, *President.*

G. A. TISDALE, *Secretary.*

Attorney to accept service in Minnesota, JOHN ROGERS, Jr., St. Paul.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Loans secured by mortgages on real estate.....	\$103,477 08
Market value of bonds and stocks.....	252,850 00
Cash on hand and in bank.....	38,944 34
Premiums in course of collection.....	8,696 85
All other assets.....	4,167 67
Total admitted assets.....	\$408,135 94

## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance.....	72,208 61
Unpaid losses.....	6,500 00
Other liabilities.....	2,181 85
Total liabilities, including capital.....	\$280,885 46
Net surplus.....	\$127,250 48

## III. INCOME IN 1888.

From premiums received.....	\$167 130 77
From interests and dividends.....	16,747 05
Total income.....	\$183,877 82
Excess of income over expenditures.....	\$21,894 46

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$107,370 99
Dividends .....	10,000 00
Commissions and brokerage.....	20,835 85
Salaries of officers and employes.....	12,672 46
Taxes.....	5,756 63
All other expenditures.....	5,347 43
Total expenditures.....	\$161,983 36

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$11,357,821 00
Premiums received thereon.....	122,236 12
Marine and inland risks written in 1888.....	3,329,868 00
Premiums received thereon.....	59,396 18
Total risks in force Dec. 31, 1888.....	\$11,537,484 00
Total premiums received from commencement to date.....	\$2,822,366 66
Total losses paid from commencement to date.....	1,687,901 47
Excess of premiums over losses.....	\$1,134,465 19

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$837,014 00
Premiums received.....	10,528 84

*Losses Paid.*

Fire.....	\$3,127 87
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*Losses Incurred.*

Fire.....	\$8,568 50
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## MERCANTILE FIRE &amp; MARINE INSURANCE COMPANY.

Principal Office.....Boston, Mass.

(Organized in 1823.)

GEO. R. ROGERS, *President.*

JAMES SIMPSON, *Secretary.*

Attorney to accept service in Minnesota, J. J. WATSON, St. Paul.

CASH CAPITAL, \$400,000.

## I. ASSETS.

Loans secured by mortgages on real estate.....	\$25,841 06
Market value of bonds and stocks .....	587,044 00
Loans secured by bonds and stocks as collateral.....	4,000 00
Cash on hand and in bank.....	31,465 02
Premiums in course of collection.....	15,141 85
All other assets.....	22,535 88
Total admitted assets.....	\$686,027 81

## II. LIABILITIES.

Capital stock paid up.....	\$400,000 00
Reserved for reinsurance.....	108,451 48
Unpaid losses.....	27,863 16
Other liabilities.....	6,178 32
<b>Total liabilities, including capital.....</b>	<b>\$542,492 96</b>
<b>Net surplus.....</b>	<b>\$143,534 85</b>

## III. INCOME IN 1888.

From premiums received.....	\$175,091 28
From interests and dividends.....	36,935 49
From rents and all other sources.....	9,364 56
<b>Total income.....</b>	<b>\$221,391 33</b>
<b>Excess of income over expenditures.....</b>	<b>\$18,738 18</b>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$108,096 48
Dividends.....	32,395 00
Commissions and brokerage.....	33,601 17
Salaries of officers and employes.....	12,148 00
Taxes.....	5,110 69
All other expenditures.....	11,301 81
<b>Total expenditures.....</b>	<b>\$202,653 15</b>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$13,712,441 00
Premiums received thereon.....	152,810 77
Marine and inland risks written in 1888.....	2,295,034 00
Premiums received thereon.....	54,659 28
<b>Total risks in force Dec. 31, 1888.....</b>	<b>\$17,239,407 00</b>
<b>Total premiums received from commencement to date.....</b>	<b>\$6,684,144 00</b>
<b>Total losses paid from commencement to date.....</b>	<b>4,929,888 73</b>
<b>Excess of premiums over losses.....</b>	<b>\$1,754,255 27</b>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$653,602 00
Premiums received.....	6,960 69

*Losses Paid.*

Fire.....	\$4,712 00
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*Losses Incurred.*

Fire.....	\$4,766 50
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## MERCHANTS INSURANCE COMPANY.

Principal Office.....Providence, R. I.

(Organized in 1851.)

WM. T. BARTON, *President*.WM. P. GOODWIN, *Secretary*.

Attorney to accept service in Minnesota, C. W. SEXTON, Minneapolis.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Loans secured by mortgages on real estate.....	\$86,604 13
Market value of bonds and stocks.....	295,656 00
Loans secured by bonds and stocks as collateral.....	18,910 00
Cash on hand and in bank.....	41,154 25
Premiums in course of collection.....	26,826 00
All other assets.....	679 28
Total admitted assets.....	\$469,829 66

## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance.....	138,100 00
Unpaid losses.....	19,685 69
Other liabilities.....	2,682 95
Total liabilities, including capital.....	\$360,468 64
Net surplus.....	\$109,361 02

## III. INCOME IN 1888.

From premiums received.....	\$219,644 71
From interests and dividends.....	20,042 97
Total income.....	\$239,687 68
Excess of income over expenditures.....	\$2,503 15

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$147,169 66
Dividends.....	14,000 00
Commissions and brokerage.....	40,075 71
Salaries of officers and employes.....	29,602 14
Taxes.....	6,337 02
Total expenditures.....	\$237,184 53

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$22,444,160 00
Premiums received thereon.....	250,213 00
Total risks in force Dec. 31, 1888.....	\$23,443,705 00
Total premiums received from commencement to date.....	\$5,881,829 93
Total losses paid from commencement to date.....	3,981,724 01
Excess of premiums over losses.....	\$1,900,105 92



## INSURANCE COMMISSIONER.

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## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$626,005 00
Premiums received.....	8,879 42

*Losses Paid.*

Fire.....	\$4,331 50
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*Losses Incurred.*

Fire.....	\$4,951 92
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**MERCHANTS INSURANCE COMPANY.**

Principal Office.....Newark, N. J.

(Organized in 1858.)

HENRY POWLES, *President.*J. R. MULLIKEN, *Secretary.*

Attorney to accept service in Minnesota, A. R. MCGILL, St. Paul.

CASH CAPITAL, \$400,000.

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**I. ASSETS.**

Value of real estate owned.....	\$102,757 15
Loans secured by mortgages on real estate.....	425,135 78
Market value of bonds and stocks.....	778,045 75
Loans secured by bonds and stocks as collateral.....	5,000 00
Cash on hand and in bank.....	85,927 30
Premiums in course of collection.....	126,750 82
All other assets.....	5,167 40
Total admitted assets.....	\$1,528,784 20

**II. LIABILITIES.**

Capital stock paid up.....	\$400,000 00
Reserved for reinsurance.....	570,001 36
Unpaid losses.....	81,478 29
Other liabilities.....	37,318 28
Total liabilities, including capital.....	\$1,088,797 93
Net surplus.....	\$439,986 27

**III. INCOME IN 1888.**

From premiums received.....	\$778,813 03
From interests and dividends.....	57,930 95
From rents and all other sources.....	2,566 32
Total income.....	\$839,310 30
Excess of income over expenditures.....	\$149,406 67

## ANNUAL REPORT

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$366,008 99
Dividends.....	40,208 04
Commissions and brokerage.....	169,110 68
Salaries of officers and employes.....	29,269 15
Taxes.....	14,927 64
All other expenditures.....	70,379 13
Total expenditures.....	\$689,903 63

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$108,892,051 00
Premiums received thereon.....	941,333 64
Total risks in force Dec. 31, 1888.....	\$105,828,285 00
Total premiums received from commencement to date.....	\$8,338,899 93
Total losses paid from commencement to date.....	4,157,966 23
Excess of premiums over losses.....	\$4,180,933 70

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,364,599 00
Premiums received.....	16,859 02

*Losses Paid.*

Fire.....	\$5,101 67
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*Losses Incurred.*

Fire.....	\$9,715 37
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## MICHIGAN FIRE AND MARINE INSURANCE COMPANY.

Principal Office.....Detroit, Mich.

(Organized in 1881.)

D. WHITNEY, JR., *President.*

EUGENE HARBECK, *Secretary.*

Attorney to accept service in Minnesota, FRED. PAINE, Minneapolis.

CASH CAPITAL, \$400,000.

## I. ASSETS.

Value of real estate owned.....	\$10,351 17
Loans secured by mortgages on real estate.....	604,117 81
Market value of bonds and stocks.....	30,525 00
Cash on hand and in bank.....	39,414 54
Premiums in course of collection.....	30,842 04
All other assets.....	200 00
Total admitted assets.....	\$715,450 56

## II. LIABILITIES.

Capital stock paid up.....	\$400,000 00
Reserved for reinsurance.....	167,641 48
Unpaid losses.....	13,928 88
Total liabilities, including capital.....	<u>\$581,570 36</u>
Net surplus.....	\$133,880 20

## III. INCOME IN 1888.

From premiums received.....	\$275,872 29
From interests and dividends .....	30,505 73
From rents and all other sources.....	57,403 52
Total income.....	<u>\$363,781 54</u>
Excess of income over expenditures.....	\$128,322 61

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$130,414 88
Commissions and brokerage.....	57,384 38
Salaries of officers and employes.....	9,463 39
Taxes.....	7,343 87
All other expenditures.....	30,852 41
Total expenditures.....	<u>\$235,458 93</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$26,180,524 00
Premiums received thereon.....	352,298 49
Total risks in force Dec. 31, 1888.....	<u>\$23,343,065 00</u>
Total premiums received from commencement to date.....	\$1,217,405 30
Total losses paid from commencement to date.....	568,253 68
Excess of premiums over losses.....	<u>\$649,151 62</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$573,822 00
Premiums received.....	10,893 43

*Losses Paid.*

Fire.....	\$3,081 72
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*Losses Incurred.*

Fire.....	\$3,246 02
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## MILWAUKEE MECHANICS INSURANCE COMPANY.

Principal Office.....Milwaukee, Wis.

(Organized in 1852.)

CHRISTIAN PREUSSER, *President*.A. J. CRAMER, *Secretary*.

Attorney to accept service in Minnesota, E. EICHHORN, Minneapolis.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Value of real estate owned.....	\$34,300 00
Loans secured by mortgages on real estate.....	733,415 98
Market value of bonds and stocks.....	567,705 00
Loans secured by bonds and stocks as collateral.....	53,050 00
Cash on hand and in bank.....	101,805 72
Premiums in course of collection.....	38,920 44
All other assets.....	5,870 00
Total admitted assets .....	\$1,535,067 14

## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance .....	446,471 89
Unpaid losses.....	26,801 00
Other liabilities.....	176 00
Total liabilities, including capital.....	\$673,448 89
Net surplus.....	\$861,618,25

## III. INCOME IN 1888.

From premiums received.....	\$494,327 23
From interests and dividends.....	71,830 06
From rents and all other sources.....	1,899 89
Total income.....	\$567,557 18
Excess of income over expenditures.....	64,173 35

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$254,054 19
Dividends .....	49,935 00
Commissions and brokerage.....	109,062 50
Salaries of officers and employees.....	42,964 17
Taxes .....	15,150 76
All other expenditures.....	32,217 21
Total expenditures.....	\$503,388 83

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$40,969,906 00
Premiums received thereon.....	546,330 75
Total risks in force Dec. 31, 1888.....	\$61,257,597 00
Total premiums received from commencement to date.....	\$6,113,115 81
Total losses paid from commencement to date.....	2,923,779 45
Excess of premiums over losses.....	\$3,189,336 36



## INSURANCE COMMISSIONER.

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BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$2, 159, 372 00
Premiums received.....	34, 163 72

*Losses Paid.*

Fire.....	\$17, 462 82
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*Losses Incurred.*

Fire.....	\$16, 462 82
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## MUTUAL FIRE INSURANCE COMPANY.

Principal Office.....New York City.

(Organized in 1869.)

P. B. ARMSTRONG, *President.*J. C. HATIE, *Secretary.*

Attorney to accept service in Minnesota, DAVID BLAKE, Minneapolis.

CASH CAPITAL, \$260,214.62.

## I. ASSETS.

Loans secured by bonds and stocks as collateral.....	\$1, 362, 456 25
Cash on hand and in bank.....	61, 258 12
Premiums in course of collection.....	63, 890 96
All other assets.....	5, 574 19
Total admitted assets.....	\$1, 493, 179 52

## II. LIABILITIES.

Capital stock paid up.....	\$260, 214 62
Reserve for reinsurance.....	356, 028 05
Unpaid losses.....	73, 845 50
Borrowed money.....	110, 000 00
Other liabilities.....	14, 989 73
Total liabilities, including capital.....	\$815, 077 90
Net surplus.....	\$678, 101 62

## III. INCOME IN 1888.

From premiums received.....	\$659, 363 12
From interests and dividends.....	50, 501 29
Total income.....	\$709, 864 41
Excess of income over expenditures.....	\$64, 042 53

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$428, 433 81
Dividends.....	117, 723 66
Salaries of officers and employes.....	61, 955 78
All other expenditures.....	42, 708 63
Total expenditures.....	\$645, 821 88

## ANNUAL REPORT

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$70,409,763 00
Premiums received thereon.....	861,138 62
Total risks in force Dec. 31, 1888.....	\$56,771,021 68
Total premiums received from commencement to date.....	\$2,746,194 42
Total losses paid from commencement to date. ....	1,178,579 69
Excess of premiums over losses.....	\$1,567,614 73

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,644,000 00
Premiums received.....	26,058 96

*Losses Paid.*

Fire.....	\$26 60
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*Losses Incurred.*

Fire.....	\$26 60
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## NATIONAL FIRE INSURANCE COMPANY.

Principal Office.....Hartford, Conn.

(Organized in 1871.)

JAMES NICHOLS, *President.*

E. G. RICHARDS, *Secretary.*

Attorney to accept service in Minnesota, H. L. MOSS, St. Paul.

CASH CAPITAL, \$1,000,000.

## I. ASSETS.

Value of real estate owned.....	\$24,478 40
Loans secured by mortgages on real estate.....	644,854 55
Market value of bonds and stocks.....	1,387,796 00
Loans secured by bonds and stocks as collateral.....	5,450 00
Cash on hand and in bank.....	142,141 91
Premiums in course of collection.....	109,082 23
All other assets.....	12,778 07
Total admitted assets.....	\$2,326,581 16

## II. LIABILITIES.

Capital stock paid up.....	\$1,000,000 00
Reserved for reinsurance.....	724,429 03
Unpaid losses.....	73,799 90
Other liabilities.....	21,226 03
Total liabilities, including capital.....	\$1,819,454 96
Net surplus.....	\$507,126 20

## III. INCOME IN 1888.

From premiums received .....	\$1,376,155 93
From interests and dividends.....	106,939 14
From rents and all other sources.....	2,634 00
Total income.....	<u>\$1,484,729 07</u>
Excess of income over expenditures..	\$311,999 30

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$595,979 52
Dividends.....	100,000 00
Commissions and brokerage.....	221,444 76
Salaries of officers and employes.....	85,312 49
Taxes.....	18,727 48
All other expenditures.....	151,265 52
Total expenditures.....	<u>\$1,172,729 77</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$152,549,546 00
Premiums received thereon.....	1,641,982 14
Total risks in force Dec. 31, 1888.....	<u>\$110,258,971 00</u>
Total premiums received from commencement to date.....	\$8,176,234 53
Total losses paid from commencement to date.....	3,725,740 62
Excess of premiums over losses.....	<u>\$4,450,493 91</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written .....	\$2,775,083 00
Premiums received.....	41,708 77

*Losses Paid.*

Fire.....	\$33,966 24
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*Losses Incurred.*

Fire.....	\$33,334 02
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## NATIONAL FIRE INSURANCE COMPANY.

Principal Office.....New York City.

(Organized in 1838.)

HENRY T. DROWNE, *President.*J. H. KATTENSTROTH, *Secretary.*

Attorney to accept service in Minnesota, S. S. EATON, St. Paul.

CASH CAPITAL, \$200, 000.

## I. ASSETS.

Loans secured by mortgages on real estate .....	\$36, 775 02
Market value of bonds and stocks.....	297, 137 50
Loans secured by bonds and stocks as collateral.....	30, 000 00
Cash on hand and in bank.....	20, 195 37
Premiums in course of collection.....	26, 155 83
All other assets.....	1, 673 75
Total admitted assets.....	\$411, 937 47

## II. LIABILITIES.

Capital stock paid up.....	\$200, 000 00
Reserved for reinsurance.....	119, 123 39
Unpaid losses.....	15, 935 27
Other liabilities.....	4, 998 08
Total liabilities, including capital.....	\$340, 056 74
Net surplus.....	\$71, 880 73

## III. INCOME IN 1888.

From premiums received.....	\$218, 787 15
From interests and dividends.....	11, 032 07
Total income.....	\$229, 819 22
Excess of income over expenditures.....	\$572 30

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$127, 890 31
Dividends.....	16, 000 00
Commissions and brokerage.....	53, 701 27
Salaries of officers and employes.....	14, 846 06
Taxes.....	2, 506 15
All other expenditures.....	14, 303 13
Total expenditures.....	\$229, 246 92

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$28, 431, 862 00
Premiums received thereon.....	270, 813 86
Total risks in force Dec. 31, 1888.....	\$26, 264, 125 00
Total premiums received from commencement to date.....	\$4, 834, 591 40
Total losses paid from commencement to date.....	2, 565, 824 30
Excess of premiums over losses.....	\$2, 268, 767 10



## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,266,223 00
Premiums received.....	19,346 31

*Losses Paid.*

Fire.....	\$7,826 23
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*Losses Incurred.*

Fire.....	\$7,958 16
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## NEWARK FIRE INSURANCE COMPANY.

Principal Office.....Newark, N. J.

(Organized in 1810.)

JOHN J. HENRY, *President.*

OSCAR O. BREWER, *Secretary.*

Attorney to accept service in Minnesota, A. R. MCGILL, St. Paul.

CASH CAPITAL, \$250,000.

## I. ASSETS.

Value of real estate owned.....	\$51,329 00
Loans secured by mortgages on real estate.....	384,731 04
Market value of bonds and stocks.....	212,849 87
Loans secured by bonds and stocks as collateral.....	4,000 00
Cash on hand and in bank.....	44,549 68
Premiums in course of collection.....	15,172 64
All other assets.....	1,868 33
Total admitted assets.....	\$714,500 56

## ASSETS NOT ADMITTED.

Bills receivable for fire premiums.....	\$313 51
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## II. LIABILITIES.

Capital stock paid up. ....	\$250,000 00
Reserved for reinsurance.....	122,815 61
Unpaid losses.....	7,486 74
Other liabilities.....	10,397 67
Total liabilities, including capital.....	\$390,700 02
Net surplus.....	\$323,800 54

## III. INCOME IN 1888.

From premiums received.....	\$177,415 55
From interests and dividends.....	29,483 97
From rents and all other sources.....	1,265 00
Total income.....	\$208,164 52
Excess of income over expenditures.....	\$10,883 09

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$102,522 82
Dividends.....	24,660 40
Commissions and brokerage.....	38,419 62
Salaries of officers and employes.....	14,390 45
Taxes.....	6,940 46
All other expenditures.....	10,397 68
Total expenditures.....	\$197,331 43

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$24,574,852 00
Premiums received thereon.....	200,024 29
Total risks in force Dec. 31, 1888.....	\$27,414,671 00
Total premiums received from commencement to date.....	\$3,481,421 25
Total losses paid from commencement to date.....	1,478,689 74
Excess of premiums over losses.....	\$2,002,731 51

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$159,903 00
Premiums received.....	2,241 05

*Losses Paid.*

Fire.....	\$753 43
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*Losses Incurred.*

Fire.....	\$750 00
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## NEW HAMPSHIRE FIRE INSURANCE COMPANY.

Principal Office.....Manchester, N. H.

(Organized in 1869.)

J. A. WESTON, *President.*

J. C. FRENCH, *Secretary.*

Attorney to accept service in Minnesota, J. G. McFARLANE, Minneapolis.

CASH CAPITAL, \$600,000.

## I. ASSETS.

Loans secured by mortgages on real estate.....	\$369,445 62
Market value of bonds and stocks.....	953,699 00
Loans secured by bonds and stocks as collateral.....	52,600 00
Cash on hand and in bank.....	61,936 96
Premiums in course of collection.....	67,428 42
Total admitted assets.....	\$1,505,110 00

## II. LIABILITIES.

Capital stock paid up.....	\$600,000 00
Reserved for reinsurance.....	498,223 78
Unpaid losses.....	89,039 75
Other liabilities.....	13,485 68
Total liabilities, including capital.....	<u>\$1,200,749 21</u>
Net surplus.....	<u>\$304,360 79</u>

## III. INCOME IN 1888.

From premiums received.....	\$682,019 43
From interests and dividends.....	64,821 40
Total income.....	<u>\$746,840 83</u>
Excess of income over expenditures.....	<u>\$130,402 82</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$353,125 04
Dividends.....	40,000 00
Commissions and brokerage.....	135,099 75
Salaries of officers and employes.....	35,982 81
Taxes.....	18,862 76
All other expenditures.....	33,367 65
Total expenditures.....	<u>\$616,438 01</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$69,480,389 00
Premiums received thereon.....	812,322 30
Total risks in force Dec. 31, 1888.....	<u>\$73,200,973 00</u>
Total premiums received from commencement to date.....	\$6,027,712 78
Total losses paid from commencement to date.....	3,020,275 36
Excess of premiums over losses.....	<u>\$3,007,437 42</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,726,819 00
Premiums received.....	20,583 97

*Losses Paid.*

Fire.....	\$11,586 77
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*Losses Incurred.*

Fire.....	\$10,101 82
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## NEW YORK BOWERY FIRE INSURANCE COMPANY.

Principal Office..... New York City\*

(Organized in 1833.)

J. A. DELANOY, *President*.C. N. BLAUVELT, *Secretary*.

Attorney to accept service in Minnesota, A. R. MCGILL, St. Paul.

CASH CAPITAL, \$300,000.

## I. ASSETS.

Loans secured by mortgages on real estate.....	\$28,052 39
Market value of bonds and stocks.....	646,720 00
Loans secured by bonds and stocks as collateral.....	17,787 50
Cash on hand and in bank.....	35,427 86
Premiums in course of collection.....	44,682 40
All other assets.....	2,906 26
Total admitted assets.....	\$770,576 41

## II. LIABILITIES.

Capital stock paid up.....	\$300,000 00
Reserved for reinsurance.....	\$280,938 30
Unpaid losses.....	64,367 66
Other liabilities.....	6,200 74
Total liabilities, including capital.....	\$651,506 70
Net surplus.....	\$119,069 71

## III. INCOME IN 1888.

From premiums received.....	\$425,483 57
From interests and dividends.....	28,019 96
Total income.....	\$453,503 53

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$266,620 78
Dividends.....	30,000 00
Commissions and brokerage.....	102,203 77
Salaries of officers and employees.....	38,240 04
Taxes.....	7,061 66
All other expenditures.....	37,097 28
Total expenditures.....	\$481,223 53
Excess of expenditures over income.....	\$27,720 00

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$69,687,777 00
Premiums received thereon.....	510,618 43
Total risks in force Dec. 31, 1888.....	\$81,299,274 00
Total premiums received from commencement to date.....	\$7,790,428 65
Total losses paid from commencement to date.....	3,788,637 26
Excess of premiums over losses.....	\$4,051,791 39



## INSURANCE COMMISSIONER.

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## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,107,872 00
Premiums received.....	14,256 95

*Losses Paid.*

Fire.....	\$11,202 26
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*Losses Incurred.*

Fire.....	\$10,762 54
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## NEW YORK FIRE INSURANCE COMPANY.

Principal Office .....New York City

(Organized in 1832.)

DANIEL UNDERHILL, *President.*AUGUSTUS COLSON, *Secretary.*

Attorney to accept service in Minnesota, O. M. LARAWAY, Minneapolis.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Value of real estate owned.....	\$108,400 00
Loans secured by mortgages on real estate.....	39,462 63
Market value of bonds and stocks.....	190,168 60
Cash on hand and in bank.....	8,673 48
Premiums in course of collection.....	16,486 32
All other assets.....	2,212 25
Total admitted assets.....	\$365,403 28

## II. LIABILITIES.

Capita stock paid up.....	\$200,000 00
Reserved for reinsurance.....	85,660 93
Unpaid losses.....	19,571 60
Other liabilities.....	3,959 00
Total liabilities, including capital.....	\$309,190 93
Net surplus.....	\$56,212 35

## III. INCOME IN 1888.

From premiums received.....	\$155,447 18
From interests and dividends.....	8,735 66
From rents and all other sources.....	3,711 97
Total income.....	\$167,894 81

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$105,040 45
Commissions and brokerage.....	37,391 66
Salaries of officers and employes.....	19,571 83
Taxes.....	2,021 63
All other expenditures.....	8,641 19
Total expenditures.....	\$172,666 76
Excess of expenditures over income.....	\$4,771 95

## V. MISCELLANEOUS.

Fire risks written in 1888 .....	\$20,887,048 00
Premiums received thereon.....	184,898 59
Total risks in force Dec. 31, 1888.....	<u>\$18,816,528 00</u>
Total premiums received from commencement to date.....	\$4,727,419 00
Total losses paid from commencement to date.....	2,013,716 00
Excess of premiums over losses.....	<u>\$2,713,703 00</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$206,390 00
Premiums received.....	3,340 78

*Losses Paid.*

Fire .....	\$799 00
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*Losses Incurred.*

Fire.....	\$799 00
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## NIAGARA FIRE INSURANCE COMPANY.

Principal Office.....New York City.

(Organized in 1850.)

PETER NOTMAN, *President.*

WEST POLLOCK, *Secretary.*

Attorney to accept service in Minnesota, THOS. COCHRAN, St. Paul.

CASH CAPITAL, \$500,000.

## I. ASSETS.

Value of real estate owned.....	\$514,767 18
Loans secured by mortgages on real estate.....	47,348 17
Market value of bonds and stocks.....	1,359,989 40
Loans secured by bonds and stocks as collateral.....	47,450 00
Cash on hand and in bank.....	192,978 38
Premiums in course of collection.....	175,545 26
All other assets.....	22,056 98
Total admitted assets.....	<u>\$2,360,135 37</u>

## II. LIABILITIES.

Capital stock paid up.....	\$500,000 00
Reserved for reinsurance.....	1,268,480 69
Unpaid losses.....	175,628 89
Other liabilities.....	36,435 53
Total liabilities, including capital.....	<u>\$1,980,595 11</u>
Net surplus.....	<u>\$379,540 26</u>

## III. INCOME IN 1888.

From premiums received.....	\$1,756,176 68
From interests and dividends.....	63,870 66
From rents and all other sources.....	18,032 89
Total income.....	<u>\$1,838,080 23</u>
Excess of income over expenditures.....	\$76,715 93

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$1,044,723 03
Dividends.....	50,130 00
Commissions and brokerage.....	310,735 20
Salaries of officers and employes.....	126,450 00
Taxes.....	45,548 72
All other expenditures.....	<u>183,777 35</u>
Total expenditures.....	\$1,761,364 30

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$272,382,596 00
Premiums received thereon.....	2,199,821 30
Marine and inland risks written in 1888.....	543,016 00
Premiums received thereon.....	<u>14,511 06</u>
Total risks in force Dec. 31, 1888. ....	\$286,567,948 00
Total premiums received from commencement to date....	\$25,445,723 84
Total losses paid from commencement to date.....	<u>12,972,199 24</u>
Excess of premiums over losses.....	\$12,473,524 60

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,741,322 00
Premiums received.....	35,875 30

*Losses Paid.*

Fire.....	\$15,702 82
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*Losses Incurred.*

Fire.....	\$18,458 56
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## NORTH AMERICAN INSURANCE COMPANY.

Principal Office.....Boston, Mass.

(Organized in 1872.)

SILAS PEIRCE, *President.*C. E. MACULLAR, *Secretary.*

Attorney to accept service in Minnesota, J. J. WATSON, St. Paul.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Value of real estate owned.....	\$7,899 30
Loans secured by mortgages on real estate .....	69,870 09
Market value of bonds and stocks.....	243,008 00
Loans secured by bonds and stocks as collateral.....	27,600 00
Cash on hand and in bank.....	15,467 55
Premiums in course of collection.....	21,590 07
All other assets .....	1,985 84
Total admitted assets .....	\$387,420 85

## II. LIABILITIES.

Capital stock paid up .....	\$200,000 00
Reserved for reinsurance.....	115,122 69
Unpaid losses.....	16,182 18
Other liabilities.....	5,718 89
Total liabilities, including capital.....	\$337,023 76
Net surplus.....	\$50,397 09

## III. INCOME IN 1888.

From premiums received .....	\$159,396 02
From interests and dividends.....	13,850 05
From rents and all other sources .....	5,836 61
Total income.....	\$179,082 68
Excess of income over expenditures.....	\$24,880 61

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$82,521 46
Dividends.....	13,936 00
Commissions and brokerage.....	30,151 03
Salaries of officers and employes.....	12,916 53
Taxes.....	5,215 12
All other expenditures .....	9,461 93
Total expenditures.....	\$154,202 07

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$21,274,488 00
Premiums received thereon .....	208,838 55
Total risks in force Dec. 31, 1888.....	\$19,523,318 00
Total premiums received from commencement to date.....	\$1,365,811 90
Total losses paid from commencement to date.....	529,038 21
Excess of premiums over losses .....	\$836,773 69



## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$476,460 00
Premiums received.....	6,161 43

*Losses Paid.*

Fire.....	\$5,887 58
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*Losses Incurred.*

Fire .....	\$6,187 58
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## NORTHWESTERN NATIONAL INSURANCE COMPANY.

Principal Office.....Milwaukee, Wis.

(Organized in 1869.)

ALFRED JAMES, *President.*

JOHN P. MCGREGOR, *Secretary.*

Attorney to accept service in Minnesota, JAS. H. WEED, St. Paul.

CASH CAPITAL, \$600,000.

## I. ASSETS.

Loans secured by mortgages on real estate.....	\$377,741 51
Market value of bonds and stocks.....	855,130 00
Cash on hand and in bank.....	175,744 24
Premiums in course of collection.....	51,812 73
All other assets.....	3,100 00
Total admitted assets.....	\$1,463,528 48

## II. LIABILITIES.

Capital stock paid up.....	\$600,000 00
Reserved for reinsurance.....	464,521 71
Unpaid losses.....	37,009 46
Other liabilities.....	16,211 67
Total liabilities, including capital.....	\$1,117,742 84
Net surplus.....	\$345,785 64

## III. INCOME IN 1888.

From premiums received.....	\$479,416 04
From interests and dividends.....	56,398 46
From rents and all other sources.....	5,587 28
Total income.....	\$541,401 78
Excess of income over expenditures.....	\$48,293 81

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$269,694 61
Dividends.....	48,000 00
Commissions and brokerage.....	67,203 43
Salaries of officers and employes.....	55,308 49
Taxes.....	13,323 00
All other expenditures.....	39,578 34
Total expenditures.....	\$493,107 97

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$49,421,886 00
Premiums received thereon.....	550,077 20
Marine and inland risks written in 1888.....	2,453,156 00
Premiums received thereon.....	7,459 26
Total risks in force Dec. 31, 1888.....	\$74,329,838 00
Total premiums received from commencement to date .....	\$7,710,191 13
Total losses paid from commencement to date .....	4,148,515 02
Excess of premiums over losses.....	\$3,561,676 11

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,743,235 00
Premiums received.....	24,005 90

*Inland.*

Risks written.....	\$88,290 00
Premiums received.....	302 72

*Losses Paid.*

Fire, \$15,807.36; inland, \$121.83; total.....	\$15,929 19
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*Losses Incurred.*

Fire, \$14,718.52; inland, \$121.83; total.....	\$14,840 35
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## OHIO FARMERS INSURANCE COMPANY.

Principal Office.....Le Roy, Ohio

(Organized in 1848.)

J. C. JOHNSON, *President.*

A. H. HAWLEY, *Secretary.*

Attorney to accept service in Minnesota, CHAS. SHANDREW, St. Paul.

## I. ASSETS.

Value of real estate owned.....	\$21,626 71
Loans secured by mortgages on real estate.....	959,731 67
Market value of bonds and stocks.....	133,003 57
Loans secured by bonds and stocks as collateral.....	28,500 00
Cash on hand and in bank.....	137,992 39
Premiums in course of collection.....	191,317 02
All other assets.....	4,155 78
Total admitted assets.....	\$1,476,327 14

## II. LIABILITIES.

Reserved for reinsurance.....	\$1,031,454 13
Unpaid losses.....	19,763 35
Total liabilities, including capital.....	<u>\$1,051,217 48</u>
Net surplus.....	\$425,109 66

## III. INCOME IN 1888.

From premiums received.....	\$587,609 53
From interests and dividends.....	59,332 19
Total income.....	<u>\$646,941 72</u>
Excess of income over expenditures.....	\$53,246 70

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$414,726 52
Commissions and brokerage.....	101,854 88
Salaries of officers and employes.....	23,650 00
Taxes.....	20,196 73
All other expenditures.....	33,266 89
Total expenditures.....	<u>\$593,695 02</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$68,608,613 00
Premiums received thereon.....	618,848 84
Total risks in force Dec. 31, 1888.....	<u>\$230,614,795 00</u>
Total premiums received from commencement to date.....	\$6,697,723 00
Total losses paid from commencement to date.....	<u>4,383,066 00</u>
Excess of premiums over losses.....	\$2,314,657 00

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$441,870 00
Premiums received.....	5,099 75

*Losses Paid.*

Fire.....	\$128 00
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*Losses Incurred.*

Fire.....	\$128 00
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## ORIENT INSURANCE COMPANY.

Principal Office.....Hartford

(Organized in 1867.)

CHARLES B. WHITING, *President.*JAMES U. TAINTOR, *Secretary.*

Attorney to accept service in Minnesota, J. H. WEED, St. Paul.

CASH CAPITAL, \$1,000,000.

## I. ASSETS.

Value of real estate owned.....	\$16,125 69
Loans secured by mortgages on real estate.....	245,108 92
Market value of bonds and stocks.....	1,224,648 41
Loans secured by bonds and stocks as collateral.....	30,540 00
Cash on hand and in bank.....	69,740 57
Premiums in course of collection.....	184,539 91
All other assets.....	23,099 20
Total admitted assets.....	\$1,743,802 70

## II. LIABILITIES.

Capital stock paid up.....	\$1,000,000 00
Reserved for reinsurance .....	493,617 23
Unpaid losses.....	63,358 67
Other liabilities.....	25,005 26
Total liabilities, including capital.....	\$1,581,981 16
Net surplus.....	\$161,821 54

## III. INCOME IN 1888.

From premiums received .....	\$749,832 48
From interests and dividends.....	75,882 54
From rents and all other sources.....	310 59
Total income.....	\$826,025 61
Excess of income over expenditures.....	\$65,643 83

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$433,682 98
Dividends.....	60,000 00
Commissions and brokerage.....	134,684 87
Salaries of officers and employes.....	50,974 94
Taxes.....	17,824 21
All other expenditures.....	63,214 68
Total expenditures.....	\$760,381 81

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$71,225,345 00
Premiums received thereon.....	931,281 97
Total risks in force Dec. 31, 1888.....	\$76,156,626 97
Total premiums received from commencement to date.....	\$6,898,620 96
Total losses paid from commencement to date.....	4,160,353 87
Excess of premiums over losses.....	\$2,738,267 09



## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$2,333,897 00
Premiums received.....	28,221 00

*Losses Paid.*

Fire.....	\$10,854 95
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*Losses Incurred.*

Fire.....	\$15,192 72
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## PARK FIRE INSURANCE COMPANY.

Principal Office..... New York City

(Organized in 1853.)

WM. TAFFRAY, *President.*

WM. VALENTINE, *Secretary.*

Attorney to accept service in Minnesota, M. D. MILLER, St. Paul.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Market value of bonds and stocks.....	\$216,700 00
Cash on hand and in bank.....	1,908 95
Premiums in course of collection.....	6,200 88
All other assets.....	5,100 00
Total admitted assets.....	\$229,909 83

## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance.....	25,705 23
Unpaid losses.....	1,400 00
Other liabilities.....	2,666 66
Total liabilities, including capital.....	\$229,771 89
Net surplus.....	\$137 94

## III. INCOME IN 1888.

From premiums received.....	\$43,128 55
From interests and dividends.....	10,650 00
From rents and all other sources.....	457 18
Total income.....	\$54,235 73

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$47,873 57
Commissions and brokerage.....	8,834 27
Salaries of officers and employees.....	7,325 15
Taxes.....	254 04
All other expenditures.....	7,350 04
Total expenditures.....	\$71,137 07
Excess of expenditures over income.....	\$16,901 34

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$7,813,639 00
Premiums received thereon.....	46,578 92
Total risks in force Dec. 31, 1888.....	\$8,164,772 00
Total premiums received from commencement to date.....	\$2,857,098 00
Total losses paid from commencement to date.....	1,431,968 00
Excess of premiums over losses.....	\$1,425,130 00

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$241,580 00
Premiums received.....	2,697 83

*Losses Paid.*

Fire.....	\$1,010 13
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*Losses Incurred.*

Fire.....	\$1,010 13
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## PACKERS AND PROVISION DEALERS INSURANCE COMPANY.

Principal Office..... Chicago, Ill.

(Organized in 1885.)

WM. E. ROLLO, *President.*

JAS. B. TOWER, *Secretary.*

Attorney to accept service in Minnesota, E. B. AMES, Minneapolis.

CASH CAPITAL, \$250,000.

## I. ASSETS.

Loans secured by mortgages on real estate.....	\$187,399 00
Market value of bonds and stocks.....	89,668 75
Cash on hand and in bank.....	29,872 65
Premiums in course of collection .....	3,172 74
All other assets.....	492 50
Total admitted assets.....	\$310,605 64

## II. LIABILITIES.

Capital stock paid up.....	\$250,000 00
Reserved for reinsurance.....	26,181 81
Unpaid losses.....	4,402 50
Total liabilities, including capital .....	\$280,584 31
Net surplus .....	\$30,071 33

## III. INCOME IN 1888.

From premiums received .....	\$50,335 67
From interests and dividends.....	15,560 10
Total income.....	<u>\$65,895 77</u>
Excess of income over expenditures.....	<u>\$18,593 39</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$31,093 79
Commissions and brokerage.....	11,975 51
Taxes.....	3,694 47
All other expenditures.....	538 61
Total expenditures.....	<u>\$47,302 38</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$5,215,639 00
Premiums received thereon.....	59,919 58
Total risks in force Dec. 31, 1888.....	<u>\$4,338,550 00</u>
Total premiums received from commencement to date.....	\$144,231 50
Total losses paid from commencement to date.....	58,644 41
Excess of premiums over losses.....	<u>\$85,587 09</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written .....	\$290,611 00
Premiums received.....	4,187 40

*Losses Paid.*

Fire.....	\$35 02
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*Losses Incurred.*

Fire.....	\$172 52
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## PACIFIC FIRE INSURANCE COMPANY.

Principal Office.....New York City.

(Organized in 1851.)

F. T. STINSON, *President.*GEORGE JEREMIAH, *Secretary.*

Attorney to accept service in Minnesota, S. S. EATON, St. Paul.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Value of real estate owned.....	\$70,000 00
Loans secured by mortgages on real estate.....	126,807 63
Market value of bonds and stocks.....	491,243 75
Loans secured by bonds and stocks as collateral.....	600 00
Cash on hand and in bank.....	18,994 06
Premiums in course of collection.....	27,683 30
All other assets.....	3,641 17
Total admitted assets.....	\$738,969 91

## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance.....	167,238 36
Unpaid losses.....	21,090 00
Other liabilities.....	10,571 30
Total liabilities, including capital.....	\$398,899 66
Net surplus.....	\$340,070 25

## III. INCOME IN 1888.

From premiums received.....	\$247,482 80
From interests and dividends.....	22,148 49
From rents and all other sources.....	2,362 49
Total income.....	\$271,993 78
Excess of income over expenditures.....	\$2,016 27

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$146,213 62
Dividends.....	24,000 00
Commissions and brokerage.....	53,748 99
Salaries of officers and employes.....	27,597 40
Taxes.....	5,754 13
All other expenditures.....	12,663 37
Total expenditures.....	\$269,977 51

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$32,994,866 00
Premiums received thereon.....	283,474 78
Total risks in force Dec. 31, 1888.....	\$40,074,620 00
Total premiums received from commencement to date.....	\$5,320,726 46
Total losses paid from commencement to date.....	2,627,066 08
Excess of premiums over losses.....	\$2,693,660 38



## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$546,239 00-
Premiums received.....	6,316.30-

*Losses Paid.*

Fire .....	\$5,035 12-
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*Losses Incurred.*

Fire .....	\$5,035 12-
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## PENNSYLVANIA FIRE INSURANCE COMPANY.

Principal Office.....Philadelphia, Pa.

(Organized in 1825.)

JOHN DEVEREUX, *President.*

J. L. THOMPSON, *Secretary.*

Attorney to accept service in Minnesota, E. R. PIERCE, Minneapolis.

CASH CAPITAL, \$400,000.

## I. ASSETS.

Value of real estate owned.....	\$155,500 00-
Loans secured by mortgages on real estate.....	334,839 44
Market value of bonds and stocks.....	1,939,720 00
Loans secured by bonds and stocks as collateral.....	495,125 00
Cash on hand and in bank.....	45,655 10
Premiums in course of collection.....	131,927 70
All other assets.....	3,785 94
Total admitted assets.....	\$3,106,553 18

## II. LIABILITIES.

Capital stock paid up.....	\$400,000 00
Reserved for reinsurance.....	1,328,373 60
Unpaid losses.....	87,103 89
Total liabilities, including capital.....	\$1,815,477 49
Net surplus.....	\$1,291,075 69

## III. INCOME IN 1888.

From premiums received.....	\$1,010,192 18
From interests and dividends.....	134,455 84
From rents and all other sources.....	2,700 39
Total income.....	\$1,147,348 41
Excess of income over expenditures.....	\$141,774 67

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$607,734 05
Dividends.....	40,000 00
Commissions and brokerage.....	240,977 53
Salaries of officers and employes.....	36,670 68
Taxes.....	27,583 60
All other expenditures.....	49,607 88
Total expenditures.....	\$1,002,573 74

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$94,329,936 00
Premiums received thereon.....	1,178,952 81
Total risks in force Dec. 31, 1888.....	\$115,074,970 00
Total premiums received from commencement to date.....	\$16,887,639 00
Total losses paid from commencement to date.....	10,132,569 00
Excess of premiums over losses.....	\$6,255,070 00

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,895,444 00
Premiums received.....	43,623 34

*Losses Paid.*

Fire.....	\$19,025 00
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*Losses Incurred.*

Fire.....	\$17,677 83
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## PEOPLES INSURANCE COMPANY.

Principal Office.....Pittsburgh, Pa.

(Organized in 1862.)

JAMES HERDMAN, *President.*

W. F. GARDNER, *Secretary.*

Attorney to accept service in Minnesota, J. S. PRINCE, St. Paul.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Value of real estate owned.....	\$57,950 00
Loans secured by mortgages on real estate .....	174,893 50
Market value of bonds and stocks.....	38,463 00
Loans secured by bonds and stocks as collateral.....	1,250 00
Cash on hand and in bank.....	22,377 95
Premiums in course of collection.....	21,398 77
All other assets.....	1,743 42
Total admitted assets.....	\$318,076 64

## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance.....	96,142 00
Unpaid losses.....	16,977 06
Other liabilities.....	397 83
Total liabilities, including capital.....	<u>\$313,516 99</u>
Net surplus.....	\$4,559 65

## III. INCOME IN 1888.

From premiums received.....	\$187,182 28
From interests and dividends.....	12,856 42
From rents and all other sources.....	4,302 33
Total income.....	<u>\$204,341 03</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$144,756 31
Dividends.....	6,000 00
Commissions and brokerage.....	36,565 64
Salaries of officers and employes.....	8,962 00
Taxes.....	5,764 95
All other expenditures.....	8,816 98
Total expenditures.....	<u>\$210,865 88</u>
Excess of expenditures over income.....	\$6,524 85

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$17,263,943 90
Premiums received thereon.....	237,415 02
Total risks in force Dec. 31, 1888.....	<u>\$14,201,288 00</u>
Total premiums received from commencement to date.....	\$1,990,366 29
Total losses paid from commencement to date.....	1,179,973 35
Excess of premiums over losses.....	<u>\$810,392 94</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$826,994 50
Premiums received.....	12,045 52

*Losses Paid.*

Fire.....	\$10,342 71
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*Losses Incurred.*

Fire.....	\$11,175 19
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## PEOPLES FIRE INSURANCE COMPANY.

Principal Office.....Manchester, N. H.

(Organized in 1885.)

J. C. MOORE, *President*.S. B. STEARNS, *Secretary*.

Attorney to accept service in Minnesota, E. S. CORSER, Minneapolis.

CASH CAPITAL, \$250,000.

## I. ASSETS.

Loans secured by mortgages on real estate.....	\$178,844 34
Market value of bonds and stocks.....	238,584 25
Loans secured by bonds and stocks as collateral.....	12,877 99
Cash on hand and in bank.....	69,354 57
Premiums in course of collection.....	62,500 91
All other assets.....	3,013 70
Total admitted assets.....	\$565,175 76

## II. LIABILITIES.

Capital stock paid up.....	\$250,000 00
Reserved for reinsurance.....	240,070 03
Unpaid losses.....	31,349 16
Other liabilities.....	12,500 18
Total liabilities, including capital.....	\$533,919 37
Net surplus.....	\$31,256 39

## III. INCOME IN 1888.

From premiums received.....	\$415,400 87
From interests and dividends.....	24,408 63
Total income.....	\$439,809 50
Excess of income over expenditures.....	\$54,528 82

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$248,186 57
Commissions and brokerage.....	91,605 54
Salaries of officers and employes.....	14,442 85
Taxes.....	6,486 32
All other expenditures.....	\$24,559 40
Total expenditures.....	\$385,280 68

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$36,935,697 00
Premiums received thereon.....	510,576 92
Total risks in force Dec. 31, 1888.....	32,983,120 00
Total premiums received from commencement to date.....	\$1,100,849 05
Total losses paid from commencement to date.....	461,078 05
Excess of premiums over losses.....	\$639,771 00



## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$679,465 00
Premiums received.....	10,609 74

*Losses Paid.*

Fire.....	\$5,421 01
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*Losses Incurred.*

Fire.....	\$5,636 84
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## PEOPLES FIRE INSURANCE COMPANY.

Principal Office.....New York City.

(Organized in 1851.)

F. V. PRICE, *President.*

A. C. MILNE, *Secretary.*

Attorney to accept service in Minnesota, A. N. NELSON, St. Paul.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Market value of bonds and stocks.....	\$310,710 00
Loans secured by bonds and stocks as collateral.....	3,700 00
Cash on hand and in bank.....	8,334 58
Premiums in course of collection.....	17,157 96
All other assets.....	2,826 00
Total admitted assets.....	\$342,728 54

## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance.....	82,281 86
Unpaid losses.....	13,421 47
Other liabilities.....	7,833 15
Total liabilities, including capital.....	\$303,536 48
Net surplus.....	\$39,192 06

## III. INCOME IN 1888.

From premiums received.....	\$132,716 59
From interests and dividends.....	9,836 02
Total income.....	\$142,552 61

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$96,258 15
Dividends.....	16,000 00
Commissions and brokerage.....	30,707 65
Salaries of officers and employes.....	11,257 39
Taxes.....	1,172 51
All other expenditures.....	9,753 98
Total expenditures.....	\$165,149 68
Excess of expenditures over income.....	\$22,597 07

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$16,860,082 00
Premiums received thereon.....	140,390 62
Marine and inland risks written in 1888.....	593,861 00
Premiums received thereon.....	11,968 14
Total risks in force Dec. 31, 1888.....	\$17,918,871 00
Total premiums received from commencement to date.....	\$3,142,336 55
Total losses paid from commencement to date.....	1,612,455 09
Excess of premiums over losses.....	\$1,529,881 46

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$733,755 00
Premiums received.....	8,847 23

*Losses Paid.*

Fire.....	\$3,683 10
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*Losses Incurred.*

Fire.....	\$3,737 27
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## PHENIX INSURANCE COMPANY.

Principal Office.....Brooklyn, N. Y.

(Organized in 1853.)

G. P. SHELDON, *President.*

PHILANDER SHAW, *Secretary.*

Attorney to accept service in Minnesota, J. H. WEED, St. Paul.

CASH CAPITAL, \$1,000,000.

## I. ASSETS.

Value of real estate owned.....	\$1,693,597 59
Loans secured by mortgages on real estate.....	202,933 49
Market value of bonds and stocks.....	1,601,602 00
Loans secured by bonds and stocks as collateral .....	3,350 00
Cash on hand and in bank.....	492,759 73
Premiums in course of collection.....	432,076 53
All other assets.....	8,277 28
Total admitted assets.....	\$4,524,596 62

## II. LIABILITIES.

Capital stock paid up.....	\$1,000,000 00
Reserved for reinsurance.....	3,117,507 94
Unpaid losses.....	194,789 80
Other liabilities.....	18,371 27
Total liabilities, including capital.....	\$4,330,669 01
Net surplus.....	\$193,927 61

## III. INCOME IN 1888.

From premiums received.....	\$3, 171, 612 0*
From interests and dividends.....	98, 651 09
From rents and all other sources.....	66, 590 24
Total income.....	<u>\$3, 336, 853 36</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$2, 415, 234 22
Commissions and brokerage.....	675, 632 28
Salaries of officers and employes.....	286, 347 94
Taxes.....	59, 715 62
All other expenditures.....	330, 367 25
Total expenditures.....	<u>\$3, 767, 297 31</u>
Excess of expenditures over income.....	<u>\$430, 443 95</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$321, 243, 176 00
Premiums received thereon.....	3, 812, 416 17
Marine and inland risks written in 1888.....	953, 675 00
Premiums received thereon.....	32, 016 99
Total risks in force Dec. 31, 1888.....	<u>\$481, 464, 893 00</u>
Total premiums received from commencement to date.....	\$68, 050, 752 36
Total losses paid from commencement to date.....	35, 811, 770 21
Excess of premiums over losses.....	<u>\$32, 238, 982 15</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$4, 408, 967 00
Premiums received.....	85, 338 46

*Losses Paid.*

Fire.....	\$41, 501 17
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*Losses Incurred.*

Fire.....	\$37, 295 97
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## PHOENIX INSURANCE COMPANY.

Principal Office.....Hartford, Conn.

(Organized in 1854.)

H. KELLOGG, *President.*GEO. H. BURDICK, *Secretary.*

Attorney to accept service in Minnesota, JAS. H. WEED, St. Paul.

CASH CAPITAL, \$2,000,000.

## I. ASSETS.

Value of real estate owned.....	\$231,594 10
Loans secured by mortgages on real estate.....	805,126 44
Market value of bonds and stocks.....	3,421,069 00
Loans secured by bonds and stocks as collateral.....	33,922 50
Cash on hand and in bank.....	307,789 55
Premiums in course of collection.....	260,628 07
All other assets.....	1,117 51
Total admitted assets.....	\$5,061,247 17

## II. LIABILITIES.

Capital stock paid up.....	\$2,000,000 00
Reserved for reinsurance.....	1,642,656 49
Unpaid losses.....	246,175 25
Total liabilities, including capital.....	\$3,888,831 74
Net surplus.....	\$1,172,415 43

## III. INCOME IN 1888.

From premiums received.....	\$2,345,857 12
From interests and dividends.....	229,729 55
From rents and all other sources.....	5,997 39
Total income.....	\$2,581,584 06
Excess of income over expenditures.....	\$243,226 25

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$1,301,460 06
Dividends.....	280,000 00
Commissions and brokerage.....	388,343 23
Salaries of officers and employees.....	105,124 69
Taxes.....	67,072 95
All other expenditures.....	195,756 88
Total expenditures.....	\$2,338,357 81

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$207,212,298 00
Premiums received thereon.....	2,538,682 78
Total risks in force Dec. 31, 1888.....	\$270,625,744 00
Total premiums received from commencement to date.....	\$40,532,741 63
Total losses paid from commencement to date.....	24,085,463 63
Excess of premiums over losses.....	\$16,447,278 00



## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$5,525,442 00
Premiums received.....	73,623 23

*Losses Paid.*

Fire.....	\$35,876 18
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*Losses Incurred.*

Fire.....	\$32,877 37
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## PROVIDENCE WASHINGTON INSURANCE COMPANY.

Principal Office.....Providence, R. I.

(Organized in 1799.)

J. H. DEWOLF, *President.*J. B. BRANCH, *Secretary.*

Attorney to accept service in Minnesota, J. H. DAVIS, Minneapolis.

CASH CAPITAL, \$400,000.

## I. ASSETS.

Market value of bonds and stocks.....	\$934,805 00
Cash on hand and in bank.....	81,745 26
Premiums in course of collection.....	100,820 90
All other assets.....	56,777 12
Total admitted assets.....	\$1,174,148 28

## II. LIABILITIES.

Capital stock paid up.....	\$400,000 00
Reserved for reinsurance.....	584,330 00
Unpaid losses.....	119,080 87
Total liabilities, including capital.....	\$1,103,410 87
Net surplus.....	\$70,737 41

## III. INCOME IN 1888.

From premiums received.....	\$969,296 99
From interests and dividends.....	40,791 24
Total income.....	\$1,010,088 23
Excess of income over expenditures.....	\$82,984 60

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$572,244 12
Dividends.....	32,000 00
Commissions and brokerage.....	174,730 30
Salaries of officers and employees.....	32,206 46
Taxes.....	21,303 76
All other expenditures.....	94,618 99
Total expenditures.....	\$927,103 63

## ANNUAL REPORT

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$67,657,656 00
Premiums received thereon.....	788,351 50
Marine and inland risks written in 1888.....	69,059,113 00
Premiums received thereon.....	458,279 69
Total risks in force Dec. 31, 1888.....	\$76,160,392 00
Total premiums received from commencement to date.....	\$14,654,520 97
Total losses paid from commencement to date.....	8,621,436 63
Excess of premiums over losses.....	\$6,033,084 34

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,259,886 00
Premiums received.....	17,002 84

*Losses Paid.*

Fire.....	\$11,007 88
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*Losses Incurred.*

Fire.....	\$12,777 40
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## PRUDENTIAL FIRE ASSOCIATION.

Principal Office.....New York City.

(Organized in 1887.)

JOHN D. CUTTER, *President.*

A. P. M. ROOME, *Secretary.*

Attorney to accept service in Minnesota, CHAS. SHANDREW, St. Paul.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Market value of bonds and stocks .....	\$247,770 87
Cash on hand and in bank.....	8,877 55
Premiums in course of collection.....	27,224 16
Total admitted assets.....	\$283,872 58

## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance.....	63,639 35
Unpaid losses.....	4,706 39
Other liabilities.....	2,341 49
Total liabilities, including capital.....	\$270,687 23
Net surplus.....	\$13,185 35

## III. INCOME IN 1888.

From premiums received.....	\$108,978 23
From interests and dividends.....	7,466 96
Total income.....	\$116,445 19
Excess of income over expenditures.....	\$66,015 37

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$26,426 55
Commissions and brokerage.....	8,601 00
Salaries of officers and employes.....	14,774 07
Taxes.....	1,226 43
All other expenditures.....	9,401 79
Total expenditures.....	<u>\$60,429 82</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$15,074,033 00
Premiums received thereon.....	142,239 18
Total risks in force Dec. 31, 1888.....	<u>\$11,842,218 00</u>
Total premiums received from commencement to date.....	\$150,049 81
Total losses paid from commencement to date.....	26,426 55
Excess of premiums over losses.....	<u>\$23,623 26</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$494,900 00
Premiums received .....	5,835 32

*Losses Paid.*

Fire .....	None.
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*Losses Incurred.*

Fire.....	None.
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## RELiance INSURANCE COMPANY.

Principal Office.....Philadelphia, Pa.

(Organized in 1841.)

THOMAS C. HILL, *President.*

WM. CHUBB, *Secretary.*

Attorney to accept service in Minnesota, JOSIAH THOMPSON, Jr., Minneapolis.

CASH CAPITAL, \$300,000.

## I. ASSETS.

Value of real estate owned.....	\$107,500 00
Loans secured by mortgages on real estate.....	127,740 21
Market value of bonds and stocks.....	529,580 00
Cash on hand and in bank.....	53,752 39
Premiums in course of collection.....	11,747 88
All other assets.....	1,147 10
Total admitted assets .....	<u>\$831,467 58</u>

## ANNUAL REPORT

## II. LIABILITIES.

Capital stock paid up.....	\$300,000 00
Reserved for reinsurance .....	212,518 10
Unpaid losses.....	14,910 06
Other liabilities.....	1,819 88
Total liabilities, including capital.....	<u>\$528,748 04</u>
Net surplus.....	\$302,719 54

## III. INCOME IN 1888.

From premiums received.....	\$160,002 69
From interests and dividends.....	32,692 67
From rents and all other sources.....	2,908 65
Total income.....	<u>\$195,599 01</u>
Excess of income over expenditures.....	\$26,136 74

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$91,564 11
Dividends .....	24,000 00
Commissions and brokerage.....	29,429 20
Salaries of officers and employes.....	11,407 00
Taxes .....	4,327 23
All other expenditures.....	8,734 73
Total expenditures.....	<u>\$169,462 27</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$19,249,556 00
Premiums received thereon.....	184,885 70
Total risks in force Dec. 31, 1888.....	<u>\$16,497,773 00</u>
Total premiums received from commencement to date.....	\$2,305,065 87
Total losses paid from commencement to date.....	1,487,206 45
Excess of premiums over losses.....	<u>\$817,859 42</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$660,121 00
Premiums received.....	9,934 59

*Losses Paid.*

Fire.....	\$1,972 87
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*Losses Incurred.*

Fire.....	\$1,972 87
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## ROCHESTER GERMAN INSURANCE COMPANY.

Principal Office.....Rochester, N. Y.

(Organized in 1872.)

FREDERICK COOK, *President.*H. F. ATWOOD, *Secretary.*

Attorney to accept service in Minnesota, A. V. TEEPLE, St. Paul.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Value of real estate owned.....	\$188,461 57
Loans secured by mortgages on real estate.....	243,737 71
Market value of bonds and stocks.....	148,425 00
Cash on hand and in bank.....	82,072 16
Premiums in course of collection.....	50,045 88
All other assets.....	83 33
Total admitted assets.....	<u>\$712,825 65</u>

## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance.....	282,951 99
Unpaid losses.....	20,676 96
Other liabilities.....	137 15
Total liabilities, including capital.....	<u>\$503,766 10</u>
Net surplus.....	\$209,059 55

## III. INCOME IN 1888.

From premiums received.....	\$364,225 83
From interests and dividends.....	20,554 76
From rents and all other sources.....	11,702 93
Total income.....	<u>\$396,483 52</u>
Excess of income over expenditures.....	\$24,419 83

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$216,343 99
Dividends.....	16,000 00
Commissions and brokerage.....	83,454 45
Salaries of officers and employes.....	19,266 17
Taxes.....	13,076 62
All other expenditures.....	23,922 46
Total expenditures.....	<u>\$372,063 69</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$41,522,356 00
Premiums received thereon.....	469,557 34
Total risks in force Dec. 31, 1888.....	<u>\$49,840,819 00</u>
Total premiums received from commencement to date.....	\$4,408,600 16
Total losses paid from commencement to date.....	2,474,252 74
Excess of premiums over losses.....	<u>\$1,934,347 42</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$750,699 00
Premiums received.....	13,965 40

*Losses Paid.*

Fire.....	\$14,397 84
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*Losses Incurred.*

Fire.....	\$14,404 84
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## ROCKFORD INSURANCE COMPANY.

Principal Office.....Rockford, Ill.

(Organized in 1866.)

JOHN LAKE, *President.*

C. E. SHELDON, *Secretary.*

Attorney to accept service in Minnesota, CHAS. SHANDREW, St. Paul, Minn.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Value of real estate owned.....	\$39,405 00
Loans secured by mortgages on real estate .....	273,484 04
Market value of bonds and stocks.....	61,590 00
Loans secured by bonds and stocks as collateral.....	106,350 00
Cash on hand and in bank.....	63,801 16
Premiums in course of collection.....	44,587 25
All other assets.....	5,052 17
Total admitted assets.....	\$594,269 62

## ASSETS NOT ADMITTED.

Bills receivable for fire premiums.....	\$130,627 23
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## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserve for reinsurance.....	320,504 65
Unpaid losses.....	16,719 76
Other liabilities.....	19,198 70
Total liabilities, including capital.....	\$556,423 11
Net surplus.....	\$87,846 51

## III. INCOME IN 1888.

From premiums received.....	\$348,958 08
From interests and dividends.....	27,013 71
From rents and all other sources.....	1,935 64
Total income.....	\$377,907 43
Excess of income over expenditures.....	\$37,729 04

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$137,348 87
Dividends.....	36,000 00
Commissions and brokerage.....	103,724 05
Salaries of officers and employes.....	38,601 47
Taxes.....	2,356 55
All other expenditures.....	22,147 45
Total expenditures.....	\$340,178 39

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$34,626,274 00
Premiums received thereon.....	441,183 40
Total risks in force Dec. 31, 1888.....	\$57,733,597 00
Total premiums received from commencement to date.....	\$5,330,830 66
Total losses paid from commencement to date.....	1,304,253 01
Excess of premiums over losses.....	\$4,026,577 65

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$855,700 00
Premiums received.....	10,788 96

*Losses Paid.*

Fire.....	\$1,610 17
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*Losses Incurred.*

Fire.....	\$1,610 17
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## RUTGERS FIRE INSURANCE COMPANY.

Principal Office.....New York City

(Organized in 1853.)

E. B. FELLOWS, *President.*

J. F. HANFORD, *Secretary.*

Attorney to accept service in Minnesota, WILLIAM PEET. Jr., Minneapolis.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Value of real estate owned.....	\$77,000 00
Loans secured by mortgages on real estate.....	62,670 00
Market value of bonds and stocks.....	252,532 50
Loans secured by bonds and stocks as collateral.....	7,200 00
Cash on hand and in bank.....	15,108 46
Premiums in course of collection.....	2,467 58
All other assets.....	2,654 61
Total admitted assets.....	\$419,633 15

## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance.....	45,825 07
Unpaid losses.....	6,397 58
Other liabilities.....	10,493 15
Total liabilities, including capital.....	<u>\$262,717 80</u>
Net surplus.....	\$156,915 35

## III. INCOME IN 1888.

From premiums received.....	\$77,538 62
From interests and dividends.....	20,684 76
From rents and all other sources.....	2,940 10
Total income.....	<u>\$101,163 48</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$45,047 61
Dividends.....	20,000 00
Commissions and brokerage.....	15,555 70
Salaries of officers and employes.....	14,649 93
Taxes.....	3,767 19
All other expenditures.....	6,612 92
Total expenditures.....	<u>\$105,633 35</u>
Excess of expenditures over income.....	\$4,469 87

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$11,362,706 00
Premiums received thereon.....	87,719 39
Total risks in force Dec. 31, 1888.....	<u>\$11,849,920 00</u>
Total premiums received from commencement to date.....	\$2,905,198 33
Total losses paid from commencement to date.....	\$1,124,017 62
Excess of premiums over losses.....	<u>\$1,781,180 71</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$662,456 00
Premiums received.....	8,072 49

*Losses Paid.*

Fire.....	\$5,117 46
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*Losses Incurred.*

Fire.....	\$5,125 46
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## ST. PAUL FIRE AND MARINE INSURANCE COMPANY.

Principal Office.....St. Paul. Minn.

(Organized in 1865.)

C. H. BIGELOW, *President.*C. B. GILBERT, *Secretary.*

## I. CAPITAL.

Whole amount of capital authorized.....	\$1,000,000 00
Whole amount of capital paid up in cash.....	500,000 00

## II. ASSETS.

Value of real estate owned by the company.....	\$108,479 59
Loans on bond and mortgage (duly recorded and being first liens on the fee simple) upon which not more than one year's interest is due.....	509,163 71
Interest accruing thereon.....	8,706 19

## STOCKS AND BONDS OWNED BY THE COMPANY.

	Par Value.	Market Value.
320 shares, First National Bank, St. Paul, stock.....	\$32,000.00	\$80,800.00
475 shares, Merchants National Bank, St. Paul, stock.....	47,500.00	83,125.00
100 shares, Bank of Minnesota, St. Paul, stock.....	10,000.00	13,500.00
60 shares, St. Paul National Bank, St. Paul, stock.....	6,000.00	6,600.00
20 shares, First National Bank, Alexandria, stock.....	2,000.00	2,500.00
60 shares, St. Paul Trust Co., St. Paul, stock.....	6,000.00	6,000.00
30 shares, First National Bank, St. Peter, stock.....	3,000.00	3,750.00
50 shares, First National Bank, Glencoe, stock.....	5,000.00	5,000.00
50 shares, Seven Corners Bank, St. Paul, stock.....	5,000.00	5,000.00
10 bonds, Chicago, St. P., M. & O. R. R. Co.....	10,000.00	11,800.00
385 shares, St. Paul Warehouse & Elevator Co., stock.....	19,250.00	9,625.00
50 shares, North American Telegraph Co., stock.....	5,000.00	5,000.00
City of St. Paul bonds, 5 per cent.....	60,000.00	63,000.00
City of Mankato bonds, 7 per cent.....	8,500.00	8,500.00
Town of Sauk Centre bonds, 8 per cent.....	3,000.00	3,075.00
Town of Vernon Centre bonds, 7 per cent.....	7,500.00	7,500.00
Village of Detroit bonds, 7 per cent.....	700.00	700.00
Town of Jo Davies bonds, 7 per cent.....	5,500.00	5,500.00
Town of Elmore bonds, 7 per cent.....	6,500.00	6,500.00
Town of Garden City bonds, 7 per cent.....	7,000.00	7,000.00
Town of Winnebago bonds, 7 per cent.....	10,000.00	10,000.00
Village of Winnebago bonds, 7 per cent.....	5,000.00	5,000.00
Town of Pilot Grove bonds, 7 per cent.....	5,000.00	5,000.00
Town of Oakwood bonds, 7 per cent.....	7,500.00	7,500.00
Town of Blue Earth City bonds, 7 per cent.....	36,000.00	36,000.00
Town of Granite Falls bonds, 7 per cent.....	1,500.00	1,500.00
County of Pine bonds, 10 per cent.....	4,500.00	4,950.00
County of Rock bonds, 10 per cent.....	24,000.00	27,600.00
County of Ramsey bonds, 8 per cent.....	1,000.00	1,100.00
County of Dawson bonds, 8 per cent.....	1,500.00	1,500.00
County of Barnes, D. T., bonds, 8 per cent.....	20,000.00	20,800.00
County of Grand Forks, D. T., bonds, 8 per cent.....	4,000.00	4,200.00
County of Grant, Minn., school district bonds, 8 per cent.....	4,000.00	4,000.00
County of Yellow Medicine, Minn., school district bonds, 9 per cent.....	200.00	200.00
County of Barnes and Cass, D. T., joint school district bonds, 8 per cent.....	9,000.00	9,000.00
County of Carver, Minn., school district bonds, 7 per cent.....	6,000.00	6,000.00
County of Griggs, D. T., school district bonds, 8 per cent.....	500.00	500.00
County of Jerauld, D. T., school district bonds, 8 per cent.....	2,400.00	2,400.00
County of Cass, D. T., school district bonds, 8 per cent.....	1,500.00	1,500.00
County of Sanborn, D. T., school district bonds, 8 per cent.....	5,500.00	5,500.00
County of Barnes and Cass, D. T., school district bonds, 8 per cent.....	1,500.00	1,500.00
County of Barnes and Cass, D. T., school district orders, 10 per cent.....	1,200.00	1,200.00
County of Cass, D. T., school district orders, 10 per cent.....	1,610.75	1,610.75
Peoria, Ill., Grape Sugar Co., bonds, 7 per cent.....	15,000.00	15,000.00
	\$417,860.75	\$488,035.75

## LOANS ON COLLATERALS.

No. Shares.	STOCK.	Par Value.	Market Value.	Amount Loaned.
250	First National Bank, St. Paul.....	\$25,000.00	\$47,500.00	\$37,500.00
50	Merchants National Bank, St. Paul.....	5,000.00	8,750.00	5,000.00
85	Second National Bank, St. Paul.....	8,500.00	17,000.00	12,000.00
467	St. Paul National Bank, St. Paul.....	46,700.00	51,370.00	35,240.00
303	Bank of Minnesota, St. Paul.....	30,300.00	40,905.00	24,800.00
302	Savings Bank, St. Paul.....	30,200.00	45,300.00	35,920.00
800	Pioneer Press Co., St. Paul.....	80,000.00	80,000.00	20,000.00
731	St. Paul & Sioux City R. R. Co.'s special issue, July 1, 1879.....	73,100.00	47,515.00	35,150.00
25	Union Land Co., St. Paul.....	2,500.00	1,500.00	1,200.00
140	St. Paul Harvester Co., St. Paul.....	14,000.00	14,000.00	7,000.00
77	Minneapolis Union Elevator Co, Minne- apolis.....	7,700.00	13,860.00	8,500.00
120	Farwell, Ozmun, Kirk & Co., St. Paul (incorporated).....	12,000.00	12,000.00	9,500.00
70	West Side Bank, St. Paul.....	7,000.00	7,000.00	5,000.00
200	Elmo Park Co., St. Paul.....	10,000.00	5,000.00	2,500.00
426	Lake Superior Elevator Co., Duluth.....	21,300.00	37,275.00	25,000.00
50	Union National Bank, Minneapolis.....	5,000.00	5,000.00	4,000.00
1,000	Tacoma Coal Co., Minneapolis.....	50,000.00	15,000.00	9,000.00
70	Island Power Co., Minneapolis.....	7,000.00	10,500.00	8,400.00
70	Strong-Hackett Hardware Co. (incorpo- rated).....	7,000.00	7,000.00	5,000.00
200	Seven Corners Bank, St. Paul.....	20,000.00	20,000.00	15,000.00
100	Cook, Lyman, Smith & Co., Chicago, Ill. (incorporated).....	10,000.00	10,000.00	5,000.00
150	Sargent County Banking Co., D. T.....	7,500.00	7,500.00	4,000.00
10	St. Paul Trust Co.....	1,000.00	1,000.00	800.00
500	St. Paul Foundry Co.....	25,000.00	25,000.00	15,800.00
20	Peoples Bank, St. Paul.....	2,000.00	2,100.00	1,680.00
25	Germania Bank, St. Paul.....	2,500.00	3,000.00	2,400.00
		\$510,300.00	\$535,075.00	\$335,390.00

Cash in the company's principal office.....	\$4,434 93
Cash belonging to the company deposited in Merchants National Bank, \$81,- 178.31; St. Paul National Bank, \$30,888.51.....	112,066 82
Interest due and accrued on stocks not included in "market value".....	11,062 67
Interest due and accrued on collateral loans.....	4,077 75
Gross premiums in course of collection not more than three months due.....	71,896 92
Bills receivable, not matured, taken for marine and inland risks.....	30,964 47
Rents due and accrued.....	375 90
The gross amount of all the assets of the company.....	\$1,684,654 70
Amount of installment notes owned and now held by the company.....	176,136 72

## III. LIABILITIES.

Gross claims for adjusted and unpaid losses due and to become due.....	\$24,557.82	
Gross losses in process of adjustment, or in suspense, including all reported and supposed losses.....	66,290.62	
Losses resisted, including interest, costs and other expenses thereon .....	5,233.15	
Total gross amount of claims for losses.....	\$96,081.59	
Deduct reinsurance thereon .....	14,570.39	
Net amount of unpaid losses.....		\$81,511.20
Gross premiums received and receivable upon all unexpired fire risks running one year or less from date of policy, including interest premiums on perpetual fire risks, \$493,696.13; unearned premiums (fifty per cent).....	\$246,848.06	
Gross premiums received and receivable upon all unexpired fire risks running more than one year from date of policy, \$653,753.04; unearned premiums (pro rata).....	348,634.24	
Gross premiums (including both cash and bills) received and receivable upon all unexpired inland navigation risks, \$102,357.08 unearned premiums (fifty per cent).....	51,178.54	
Total unearned premiums, as computed above (carried out)...		\$646,660.84
Total amount of all liabilities, except capital stock and net surplus .....		\$728,172.04
Joint stock capital actually paid up in cash.....		500,000.00
Surplus beyond capital and all other liabilities.....		456,482.66
Aggregate amount of all liabilities, including paid-up capital stock and net surplus.....		\$1,684,654.70
Amount of unearned premiums represented by installment notes, being the whole amount of such notes.....	\$176,136.72	

## IV. INCOME DURING THE YEAR.

	For Fire Risks.	From Marine and Inland Risks.	
Gross premiums and bills in course of collection at close of last previous year, as shown by that year's statement.....	\$93,280.01	\$27,404.35	
Gross premiums on risks written and renewed during the year.....	1,012,087.48	294,791.04	
Total.....	\$1,105,367.49	\$322,195.39	
Deduct premiums and bills in course of collection at this date .....	71,896.92	30,964.47	
Entire premiums collected during the year.....	\$1,033,470.57	\$291,230.92	
Deduct reinsurance, rebate, abatement and return premiums.....	227,099.00	57,775.25	
	\$806,371.57	\$233,455.67	
Net cash actually received for premiums (carried out).....			\$1,039,827.24
Received for interest on bonds and mortgages. Received for interest and dividends on stocks and bonds, stock loans, and from all other sources .....			27,478.75
Income received from all other sources.....			64,852.49
			8,318.50
Aggregate amount of income actually received during the year in cash.....			\$1,140,476.98

## V. EXPENDITURES DURING THE YEAR.

	On Fire Risks.	On Marine and Inland Risks.	
Gross amount actually paid for losses (including losses occurring in previous years).....	\$544,088.21	\$163,094.12	
Deduct amounts actually received for reinsurance in other companies.....	77,782.24	22,952.63	
	\$466,305.97	\$140,141.49	
Net amount paid during the year for losses Cash dividends actually paid stockholders during the year.....			\$606,447.46
Paid for commission or brokerage.....			50,000.00
Paid for salaries, fees and other charges of officers, clerks, agents and all other employees...			203,609.67
Paid for state, national and local taxes in this and other states.....			47,784.97
All other payments and expenditures.....			18,845.22
			46,299.46
Aggregate amount of actual expenditures during the year in cash.....			\$972,936.78

## VI. MISCELLANEOUS.

RISKS AND PREMIUMS.	Fire Risks.	Premiums.	Marine and Inland Risks.	Premiums.
In force Dec. 31, 1887 .....	\$76,192,721	\$1,077,809.65	\$1,285,206	\$48,752.92
Written or renewed in 1888..	64,829,929	1,012,087.48	46,031,295	294,791.04
Totals.....	\$141,022,650	\$2,089,897.13	\$47,316,501	\$343,543.96
Deduct expirations and cancellations.....	41,678,594	802,157.33	44,031,424	241,186.88
In force Dec. 31, 1888.....	\$99,344,056	\$1,287,739.80	\$3,285,077	\$102,357.08
Deduct amount reinsured...	7,193,847	140,290.63		
Net amount in force.....	\$92,150,209	\$1,147,449.17	\$3,285,077	\$102,357.08

## BUSINESS IN THE STATE OF MINNESOTA DURING THE YEAR 1888.

	Fire Risks.	Marine and Inland Risks.	Aggregate.
Amount of fire, marine and inland risks taken in the state .....	\$14,267,066.00	\$1,405,284.00	\$15,672,350.00
Amount of premiums received during the year	170,529.84	3,654.08	174,183.92
Losses paid during the year.....	102,307.39	562.52	102,869.91
Losses incurred during the year, whether paid or unpaid.....	103,613.79	597.16	104,210.95



## SECURITY INSURANCE COMPANY.

Principal Office.....New Haven, Conn.

(Organized in 1841.)

CHAS. B. LEETE, *President.*H. MASON, *Secretary.*

Attorney to accept service in Minnesota, Insurance Commissioner, St. Paul.

CASH CAPITAL, \$250,000.

## I. ASSETS.

Value of real estate owned.....	\$34,388 14
Loans secured by mortgages on real estate.....	127,625 00
Market value of bonds and stocks.....	359,206 50
Loans secured by bonds and stocks as collateral.....	27,300 00
Cash on hand and in bank.....	22,041 84
Premiums in course of collection.....	67,777 75
All other assets.....	8,601 42
Total admitted assets.....	<u>\$646,940 65</u>

## II. LIABILITIES.

Capital stock paid up.....	\$250,000 00
Reserved for reinsurance.....	269,451 79
Unpaid losses.....	36,983 26
Other liabilities.....	16,338 12
Total liabilities, including capital.....	<u>\$572,773 17</u>
Net surplus.....	<u>\$74,167 48</u>

## III. INCOME IN 1888.

From premiums received.....	\$541,178 90
From interests and dividends.....	24,486 21
From rents and all other sources.....	258 18
Total income.....	<u>\$565,923 29</u>
Excess of income over expenditures.....	<u>\$7,875 32</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$363,951 54
Dividends.....	17,500 00
Commissions and brokerage.....	132,006 67
Salaries of officers and employes.....	39,564 00
Taxes.....	5,025 76
Total expenditures.....	<u>\$558,047 97</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$43,543,293 00
Premiums received thereon.....	518,571 30
Marine and inland risks written in 1888.....	21,118,448 00
Premiums received thereon.....	141,850 73
Total risks in force Dec. 31, 1888 .....	<u>\$85,151,762 00</u>
Total premiums received from commencement to date.....	\$5,354,191 80
Total losses paid from commencement to date.....	3,690,984 82
Excess of premiums over losses.....	<u>\$1,663,206 98</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,300,295 00
Premiums received.....	16,286 15

*Losses Paid.*

Fire.....	\$17,502 88
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*Losses Incurred.*

Fire.....	\$17,629 43
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## SPRINGFIELD FIRE AND MARINE INSURANCE COMPANY.

Principal Office.....Springfield, Mass.

(Organized in 1849.)

J. M. DUNHAM, *President.*

S. J. HALL, *Secretary.*

Attorney to accept service in Minnesota, H. P. HUBBELL, Winona.

CASH CAPITAL, \$1,250,000.

## I. ASSETS.

Value of real estate owned.....	\$110,853 00
Loans secured by mortgages on real estate.....	231,568 06
Market value of bonds and stocks.....	2,478,324 00
Loans secured by bonds and stocks as collateral .....	32,900 00
Cash on hand and in bank.....	131,479 65
Premiums in course of collection.....	191,626 00
All other assets.....	23,391 17
Total admitted assets.....	<u>\$3,200,141 88</u>

## II. LIABILITIES.

Capital stock paid up.....	\$1,250,000 00
Reserved for reinsurance.....	1,172,571 19
Unpaid losses.....	130,834 41
Other liabilities.....	28,743 90
Total liabilities, including capital.....	<u>\$2,582,149 50</u>
Net surplus.....	<u>\$617,992 38</u>

## III. INCOME IN 1888.

From premiums received.....	\$1,584,393 59
From interests and dividends .....	129,754 94
From rents and all other sources.....	4,054 26
Total income.....	<u>\$1,718,202 79</u>
Excess of income over expenditures.....	\$135,041 32

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$936,076 08
Dividends.....	125,000 00
Commissions and brokerage.....	259,408 38
Salaries of officers and employes.....	70,184 25
Taxes.....	42,432 96
All other expenditures.....	150,059 80
Total expenditures.....	<u>\$1,583,161 47</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$127,455,935 00
Premiums received thereon.....	1,824,009 50
Total risks in force Dec. 31, 1888.....	<u>\$175,278,437 00</u>
Total premiums received from commencement to date.....	\$23,853,730 96
Total losses paid from commencement to date.....	14,805,649 41
Excess of premiums over losses.....	<u>\$9,048,081 55</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$3,321,541 00
Premiums received.....	59,325 36

*Losses Paid.*

Fire.....	\$27,180 80
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*Losses Incurred.*

Fire.....	\$28,220 00
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# SPRING GARDEN INSURANCE COMPANY.

Principal Office.....Philadelphia, Pa.

(Organized in 1828.)

JOHN VALENTINE, *President.*

J. E. PETERSON, *Secretary.*

Attorney to accept service in Minnesota, R. M. NEWPORT, St. Paul.

CASH CAPITAL, \$400,000.

## I. ASSETS.

Value of real estate owned.....	\$212 500 00
Loans secured by mortgages on real estate.....	350, 823 40
Market value of bonds and stocks.....	406, 525 00
Loans secured by bonds and stocks as collateral.....	248, 200 00
Cash on hand and in bank.....	66, 582 00
Premiums in course of collection.....	13, 076 73
All other assets.....	218 16
Total admitted assets.....	\$1, 297, 925 29

## II. LIABILITIES.

Capital stock paid up.....	\$400, 000 00
Reserved for reinsurance.....	516, 524 60
Unpaid losses.....	24, 026 89
Other liabilities.....	2, 164 75
Total liabilities, including capital.....	\$942, 715 74
Net surplus.....	\$355, 209 55

## III. INCOME IN 1888.

From premiums received.....	\$258, 787 55
From interests and dividends.....	53, 422 98
From rents and all other sources.....	5, 991 89
Total income.....	\$318, 202 42
Excess of income over expenditures..	\$2, 012 32

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$163, 652 31
Dividends.....	64, 000 00
Commissions and brokerage.....	49, 066 42
Salaries of officers and employees.....	20, 974 20
Taxes.....	8, 949 82
All other expenditures.....	9, 547 35
Total expenditures.....	\$316, 190 10

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$28, 079, 288 00
Premiums received thereon.....	316, 673 01
Total risks in force Dec. 31, 1888.....	\$26, 042, 829 58
Total premiums received from commencement to date.....	\$3, 221, 652 58
Total losses paid from commencement to date.....	2, 235, 389 79
Excess of premiums over losses.....	\$986, 262 79



## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written .....	\$951,898 34
Premiums received.....	13,968 63

*Losses Paid.*

Fire.....	\$8,084 65
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*Losses Incurred.*

Fire.....	\$8,084 65
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## STANDARD FIRE INSURANCE COMPANY.

Principal Office.....New York City.

(Organized in 1859.)

W. M. ST. JOHN, *President.*

R. H. MYERS, *Secretary.*

Attorney to accept service in Minnesota, A. R. MCGILL, St. Paul.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Value of real estate owned.....	\$7,500 00
Loans secured by mortgages on real estate .....	8,040 00
Market value of bonds and stocks.....	341,300 00
Cash on hand and in bank.....	16,591 46
Premiums in course of collection.....	7,096 25
All other assets.....	297 50
Total admitted assets.....	\$380,825 21

## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance .....	43,304 69
Unpaid losses.....	4,591 94
Other liabilities.....	2,665 47
Total liabilities, including capital.....	\$250,562 10
Net surplus.....	\$130,263 11

## III. INCOME IN 1888.

From premiums received.....	\$63,532 37
From interests and dividends.....	11,919 26
From rents and all other sources .....	765 00
Total income.....	\$76,216 63

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## IV. EXPENDITURES IN 1888.

Losses paid.....	\$48,783 84
Dividends.....	14,000 00
Commissions and brokerage.....	10,477 73
Salaries of officers and employes.....	13,757 50
Taxes.....	2,336 37
All other expenditures.....	5,770 76
Total expenditures.....	\$95,126 20
Excess of expenditures over income.....	\$18,909 57

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$9,887,687 99
Premiums received thereon.....	75,281 23
Total risks in force Dec. 31, 1888.....	\$10,181,139 83
Total premiums received from commencement to date.....	\$3,038,748 43
Total losses paid from commencement to date.....	1,801,138 83
Excess of premiums over losses.....	\$1,237,609 60

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$690,229 67
Premiums received.....	6,774 20

*Losses Paid.*

Fire.....	\$5,766 75
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*Losses Incurred.*

Fire.....	\$5,764 12
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## STATE INSURANCE COMPANY.

Principal Office.....Des Moines, Ia.

(Organized in 1865.)

O. B. AYERS, *President.*

J. C. CUMMINGS, *Secretary.*

Attorney to accept service in Minnesota, A. R. MCGILL, St. Paul.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Value of real estate owned.....	\$94,580 00
Loans secured by mortgages on real estate.....	117,235 66
Market value of bonds and stocks.....	14,475 00
Loans secured by bonds and stocks as collateral.....	7,300 00
Cash on hand and in bank.....	54,295 20
Premiums in course of collection.....	59,376 60
All other assets.....	1,927 88
Total admitted assets.....	\$349,190 34

## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance.....	113,258 10
Unpaid losses.....	21,677 84
Other liabilities.....	6,788 49
Total liabilities, including capital.....	<u>\$341,724 43</u>
Net surplus.....	\$7,465 91

## III. INCOME IN 1888.

From premiums received.....	\$334,565 92
From interests and dividends.....	12,754 32
From rents and all other sources.....	5,083 79
Total income.....	<u>\$352,404 03</u>
Excess of income over expenditures.....	\$1,935 23

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$186,451 69
Dividends.....	12,000 00
Commissions and brokerage.....	59,431 25
Salaries of officers and employes.....	63,157 93
Taxes.....	7,815 98
All other expenditures.....	21,611 95
Total expenditures.....	<u>\$350,468 80</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$16,731,772 00
Premiums received thereon.....	267,708 36
Total risks in force Dec. 31, 1888.....	<u>\$14,068,195 00</u>
Total premiums received from commencement to date.....	\$4,036,400 77
Total losses paid from commencement to date.....	1,432,937 23
Excess of premiums over losses.....	<u>\$2,603,463 54</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$2,999,199 00
Premiums received.....	47,987 19

*Losses Paid.*

Fire.....	\$18,320 24
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*Losses Incurred.*

Fire.....	\$17,420 24
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## SUN INSURANCE COMPANY.

Principal Office.....San Francisco, Cal.

(Organized in 1882.)

C. L. TAYLOR, *President*.E. E. POTTER, *Secretary*.

Attorney to accept service in Minnesota, HENRY PAINE, St. Paul.

CASH CAPITAL, \$300,000.

## I. ASSETS.

Value of real estate owned.....	\$90,000 00
Loans secured by mortgages on real estate.....	263,367 57
Market value of bonds and stocks.....	88,115 48
Cash on hand and in bank.....	15,260 85
Premiums in course of collection.....	57,222 87
All other assets.....	36,889 70
Total admitted assets.....	<u>\$550,856 47</u>

## II. LIABILITIES.

Capital stock paid up.....	\$300,000 00
Reserved for reinsurance.....	153,410 73
Unpaid losses.....	19,646 50
Other liabilities.....	13,926 65
Total liabilities, including capital.....	<u>\$486,983 88</u>
Net surplus.....	<u>\$63,872 59</u>

## III. INCOME IN 1888.

From premiums received.....	\$272,705 71
From interests and dividends.....	21,899 49
From rents and all other sources.....	5,695 64
Total income.....	<u>\$300,300 84</u>
Excess of income over expenditures.....	<u>\$17,982 11</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$158,173 29
Dividends.....	30,000 00
Commissions and brokerage.....	44,841 62
Salaries of officers and employes.....	26,399 43
Taxes.....	2,815 88
All other expenditures.....	20,589 01
Total expenditures.....	<u>\$282,318 73</u>



## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$19,154,644 00
Premiums received thereon.....	261,610 55
Marine and inland risks written in 1888.....	4,738,022 00
Premiums received thereon.....	159,719 97
Total risks in force Dec. 31, 1888.....	<u>\$16,860,816 00</u>
Total premiums received from commencement to date.....	\$1,885,813 55
Total losses paid from commencement to date.....	750,895 38
Excess of premiums over losses.....	<u>\$1,134,418 17</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$355,526 00
Premiums received.....	8,331 08

*Losses Paid.*

Fire.....	\$5,580 00
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*Losses Incurred.*

Fire.....	\$6,310 10
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## SUN MUTUAL INSURANCE COMPANY.

Principal Office.....New Orleans, La.

(Organized in 1855.)

JAMES I. DAY, *President.*

HORACE CARPENTER, *Secretary.*

Attorney to accept service in Minnesota, W. G. STRICKLAND, St. Paul.

CASH CAPITAL, \$500,000.

## I. ASSETS.

Value of real estate owned.....	\$83,000 00
Loans secured by mortgages on real estate.....	54,577 36
Market value of bonds and stocks.....	577,481 90
Loans secured by bonds and stocks as collateral.....	55,782 12
Cash on hand and in bank.....	120,600 45
Premiums in course of collection.....	88,945, 75
All other assets.....	3,675 39
Total admitted assets.....	<u>\$984,062 97</u>

## II. LIABILITIES.

Capital stock paid up.....	\$500,000 00
Reserved for reinsurance.....	181,266 00
Unpaid losses.....	31,807 00
Other liabilities.....	19,860 10
Total liabilities, including capital.....	<u>\$732,933 10</u>
Net surplus.....	<u>\$251,129 87</u>

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## III. INCOME IN 1888.

From premiums received .....	\$480,992 39
From interests and dividends.....	44,822 27
Total income.....	\$475,814 66
Excess of income over expenditures.....	\$33,920 91

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$322,384 62
Dividends.....	48,935 00
Salaries of officers and employes.....	57,407 65
Taxes.....	11,166 48
All other expenditures.....	2,000 00
Total expenditures.....	\$441,893 75

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$35,598,753 00
Premiums received thereon.....	496,025 00
Marine and inland risks written in 1888.....	16,613,078 00
Premiums received thereon.....	91,841 00
Total risks in force Dec. 31, 1888.....	\$21,229,241 00
Total premiums received from commencement to date.....	\$3,680,569 03
Total losses paid from commencement to date.....	1,851,164 11
Excess of premiums over losses.....	\$1,829,404 92

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written .....	\$848,794 00
Premiums received.....	13,397 68

*Losses Paid.*

Fire.....	\$12,551 63
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*Losses Incurred.*

Fire.....	\$13,551 63
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## SYNDICATE INSURANCE COMPANY.

Principal Office .....Minneapolis, Minn.

(Organized in 1886.)

E. B. AMES, *President.*

JACOB STONE, *Secretary.*

CASH CAPITAL, \$250,000.

## I. ASSETS.

Loans secured by mortgages on real estate.....	\$80,261 69
Market value of bonds and stocks .....	125,660 00
Loans secured by bonds and stocks as collateral.....	58,400 00
Cash on hand and in bank.....	28,300 04
Premiums in course of collection.....	12,808 44
All other assets.....	3,886 53
Total admitted assets.....	\$309,316 70

## II. LIABILITIES.

Capital stock paid up .....	\$250,000 00
Reserved for reinsurance.....	51,891 85
Unpaid losses.....	2,864 95
Total liabilities, including capital.....	<u>\$304,756 80</u>
Net surplus.....	\$4,559 90

## III. INCOME IN 1888.

From premiums received.....	\$84,138 36
From interests and dividends.....	17,357 02
From rents and all other sources.....	849 45
Total income.....	<u>\$102,344 83</u>
Excess of income over expenditures.....	\$9,954 91

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$17,656 88
Dividends .....	7,500 00
Commissions and brokerage.....	16,033 57
Salaries of officers and employes.....	9,337 71
Taxes.....	2,160 29
All other expenditures.....	9,701 47
Total expenditures.....	<u>\$92,389 92</u>

## V. MISCELLANEOUS.

Fire risks written in 1888 .....	\$6,508,237 00
Premiums received thereon.....	117,444 06
Total risks in force Dec. 31, 1888.....	<u>\$5,311,704 00</u>
Total premiums received from commencement to date.....	<u>\$152,130 73</u>
Total losses paid from commencement to date.....	78,701 40
Excess of premiums over losses.....	<u>\$73,429 33</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,891,352 00
Premiums received.....	35,826 05

*Losses Paid.*

Fire .....	\$23,059 68
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*Losses Incurred.*

Fire.....	\$23,992 12
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## TEUTONIA FIRE INSURANCE COMPANY.

Principal Office.....Philadelphia, Pa

(Organized in 1871.)

EUGENE FRAUSSEN, *President.*THOMAS CHAMBERLAIN, *Secretary.*

Attorney to accept service in Minnesota, WM. J. CREMER, St. Paul.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Value of real estate owned.....	\$81,392 65
Loans secured by mortgages on real estate.....	46,718 47
Market value of bonds and stocks.....	109,830 00
Loans secured by bonds and stocks as collateral.....	9,625 00
Cash on hand and in bank.....	14,532 56
Premiums in course of collection.....	2,570 57
All other assets.....	1,339 37
Total admitted assets.....	\$266,008 62

## II. LIABILITIES.

Capital stock paid up.....	\$200,000 00
Reserved for reinsurance.....	36,924 01
Unpaid losses.....	286 44
Other liabilities.....	592 80
Total liabilities, including capital.....	\$237,803 25
Net surplus.....	\$28,205 37

## III. INCOME IN 1888.

From premiums received.....	\$22,566 34
From interests and dividends.....	7,784 42
From rents and all other sources.....	2,223 66
Total income.....	\$32,574 42
Excess of income over expenditures.....	\$3,658 22

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$8,933 71
Dividends.....	8,000 00
Commissions and brokerage.....	3,960 74
Salaries of officers and employes.....	4,328 00
Taxes.....	1,209 26
All other expenditures.....	2,484 49
Total expenditures.....	\$28,916 20

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$3,385,516 00
Premiums received thereon.....	27,481 21
Total risks in force Dec. 31, 1888.....	\$3,465,140 00
Total premiums received from commencement to date.....	\$356,697 54
Total losses paid from commencement to date.....	122,429 46
Excess of premiums over losses.....	\$234,268 08



## INSURANCE COMMISSIONER.

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## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$226,825 00
Premiums received.....	2,677 57

*Losses Paid.*

Fire .....	\$1,412 29
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*Losses Incurred.*

Fire .....	\$1,412 29
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## TRADERS INSURANCE COMPANY.

Principal Office.....Chicago, Ill.

(Organized in 1865.)

E. BUCKINGHAM, *President.*R. J. SMITH, *Secretary.*

Attorney to accept service in Minnesota, C. H. BIGELOW, St. Paul.

CASH CAPITAL, \$500,000.

## I. ASSETS.

Value of real estate owned.....	\$1,500 00
Loans secured by mortgages on real estate.....	207,622 35
Market value of bonds and stocks.....	1,016,148 75
Cash on hand and in bank.....	60,636 00
Premiums in course of collection .....	43,285 85
All other assets .....	16,381 80
Total admitted assets.....	\$1,345,574 75

## II. LIABILITIES.

Capital stock paid up.....	\$500,000 00
Reserved for reinsurance.....	335,915 22
Unpaid losses.....	69,893 13
Other liabilities.....	17,272 73
Total liabilities, including capital.....	\$923,081 08
Net surplus .....	\$422,493 67

## III. INCOME IN 1888.

From premiums received.....	\$537,869 55
From interests and dividends .....	51,902 18
Total income.....	\$589,771 73

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$374,447 02
Dividends.....	50,000 00
Commissions and brokerage.....	104,659 82
Salaries of officers and employes.....	40,755 66
Taxes.....	16,932 95
All other expenditures.....	22,743 02
Total expenditures.....	\$609,538 47
Excess of expenditures over income.....	\$19,766 74

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$19,021,370 00
Premiums received thereon.....	676,211 69
Marine and inland risks written in 1888.....	39,950 00
Premiums received thereon.....	240 40
Total risks in force Dec. 31, 1888.....	\$46,126,530 00
Total premiums received from commencement to date.....	\$6,672,954 66
Total losses paid from commencement to date.....	4,013,658 06
Excess of premiums over losses.....	\$2,659,296 60

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,028,337 00
Premiums received.....	23,347 03

*Losses Paid.*

Fire.....	\$10,339 53
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*Losses Incurred.*

Fire.....	\$11,776 21
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## UNION INSURANCE COMPANY.

Principal Office.....Philadelphia, Pa.

(Organized in 1804.)

C. S. HOLLINSHEAD, *President.*

JOHN M. COWELL, *Secretary.*

Attorney to accept service in Minnesota, C. W. SEXTON, Minneapolis.

CASH CAPITAL, \$250,000.

## I. ASSETS.

Value of real estate owned.....	\$160,000 00
Loans secured by mortgages on real estate.....	7,687 50
Market value of bonds and stocks.....	395,401 50
Cash on hand and in bank.....	27,882 91
Premiums in course of collection.....	96,052 15
All other assets.....	4,041 89
Total admitted assets.....	\$691,065 95

## II. LIABILITIES.

Capital stock paid up.....	\$250,000 00
Reserved for reinsurance.....	274,949 85
Unpaid losses.....	81,026 01
Other liabilities.....	68,234 50
Total liabilities, including capital.....	<u>\$674,210 36</u>
Net surplus.....	<u>\$16,855 59</u>

## III. INCOME IN 1888.

From premiums received.....	\$440,264 71
From interests and dividends.....	21,367 20
From rents and all other sources.....	9,598 95
Total income.....	<u>\$471,230 86</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$341,635 51
Dividends.....	174 64
Commissions and brokerage.....	65,336 57
Salaries of officers and employes.....	38,088 46
Taxes.....	13,789 17
All other expenditures.....	43,606 69
Total expenditures.....	<u>\$502,631 04</u>
Excess of expenditures over income.....	<u>\$31,400 18</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$30,903,432 00
Premiums received thereon.....	365,167 53
Marine and inland risks written in 1888.....	106,332,369 00
Premiums received thereon.....	455,804 41
Total risks in force Dec. 31, 1888.....	<u>\$32,641,872 00</u>
Total premiums received from commencement to date.....	\$20,888,515 00
Total losses paid from commencement to date.....	15,087,243 00
Excess of premiums over losses.....	<u>\$5,751,272 00</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$715,569 00
Premiums received.....	9,024 24

*Inland.*

Risks written.....	\$11,404,963 00
Premiums received.....	27,469 20

*Losses Paid.*

Fire, \$5,745.48; inland, \$2,997.33; Total.....	\$8,742 81
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*Losses Incurred.*

Fire, \$4,779.26; inland, \$2,997.33; Total.....	\$7,776 59
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## UNION INSURANCE COMPANY.

Principal Office.....San Francisco

(Organized in 1865.)

NATHANIEL T. JAMES, *President.*JAMES D. BAILEY, *Secretary.*

Attorney to accept service in Minnesota, C. W. SEXTON, Minneapolis.

CASH CAPITAL, \$750,000.

## I. ASSETS.

Value of real estate owned.....	\$115,000 00
Loans secured by mortgages on real estate .....	199,333 00
Market value of bonds and stocks.....	780,840 00
Loans secured by bonds and stocks as collateral.....	23,000 00
Cash on hand and in bank.....	49,680 06
Premiums in course of collection.....	99,028 49
All other assets .....	52,181 73
Total admitted assets .....	\$1,319,063 28

## II. LIABILITIES.

Capital stock paid up .....	\$750,000 00
Reserved for reinsurance.....	345,979 67
Unpaid losses.....	76,229 72
Other liabilities.....	20,272 83
Total liabilities, including capital.....	\$1,192,482 22
Net surplus.....	\$126,581 06

## III. INCOME IN 1888.

From premiums received .....	\$694,555 46
From interests and dividends.....	33,626 58
From rents and all other sources.....	8,461 10
Total income.....	\$736,643 14
Excess of income over expenditures.....	\$56,826 24

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$383,251 59
Dividends.....	30,000 00
Commissions and brokerage.....	169,181 22
Salaries of officers and employes.....	42,340 92
Taxes.....	15,604 03
All other expenditures .....	39,489 14
Total expenditures.....	\$678,816 90

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$54,256,418 00
Premiums received thereon .....	727,287 66
Marine and inland risks written in 1888.....	15,780,522 00
Premiums received thereon.....	\$238,645 48
Total risks in force Dec. 31, 1888.....	\$46,977,421 00
Total premiums received from commencement to date.....	\$9,480,735 01
Total losses paid from commencement to date.....	5,214,982 60
Excess of premiums over losses .....	\$4,265,752 41



## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$793, 159 00
Premiums received.....	16, 168 83

*Losses Paid.*

Fire.....	\$14, 996 52
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*Losses Incurred.*

Fire .....	\$15, 373 56
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## UNITED FIREMENS INSURANCE COMPANY.

Principal Office.....Philadelphia, Pa.

(Organized in 1860.)

JOSEPH L. CAVAN, *President.*

ROBERT B. BEATH, *Secretary.*

Attorney to accept service in Minnesota, JOHN P. REA, Minneapolis.

CASH CAPITAL, \$300,000.

## I. ASSETS.

Value of real estate owned.....	\$117, 950 00
Loans secured by mortgages on real estate.....	544, 343 79
Market value of bonds and stocks.....	241, 775 00
Loans secured by bonds and stocks as collateral.....	70, 000 00
Cash on hand and in bank.....	24, 166 14
Premiums in course of collection.....	11, 937 85
All other assets.....	8, 287 87
Total admitted assets.....	\$1, 018, 460 65

## II. LIABILITIES.

Capital stock paid up.....	\$300, 000 00
Reserved for reinsurance .....	610, 512 31
Unpaid losses.....	20, 132 04
Other liabilities.....	3, 092 91
Total liabilities, including capital.....	\$933, 737 26
Net surplus.....	\$84, 723 29

## III. INCOME IN 1888.

From premiums received.....	\$204, 591 37
From interests and dividends .....	41, 985 56
From rents and all other sources.....	1, 320 00
Total income.....	\$247, 896 93
Excess of income over expenditures.....	\$50, 347 93

## IV. EXPENDITURES IN 1888.

Losses paid .....	\$103,271 23
Dividends .....	18,000 00
Commissions and brokerage.....	42,545 91
Salaries of officers and employes.....	14,875 16
Taxes.....	6,299 43
All other expenditures.....	12,537 27
Total expenditures.....	<u>\$197,549 00</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$26,396,347 00
Premiums received thereon.....	292,328 14
Total risks in force Dec. 31, 1888.....	<u>\$45,667,504 00</u>
Total premiums received from commencement to date.....	\$1,728,576 24
Total losses paid from commencement to date.....	1,074,858 24
Excess of premiums over losses .....	<u>\$653,718 00</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$724,495 00
Premiums received.....	12,356 12

*Losses Paid.*

Fire.....	\$8,861 57
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*Losses Incurred.*

Fire.....	\$8,926 84
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## UNITED STATES FIRE INSURANCE COMPANY.

Principal Office.....New York City.

(Organized in 1824.)

W. W. UNDERHILL, *President.*

GEORGE E. COCK, *Secretary.*

Attorney to accept service in Minnesota, E. M. CHRISTIAN, Minneapolis.

CASH CAPITAL, \$250,000.

## I. ASSETS.

Loans secured by mortgages on real estate.....	\$577,506 29
Market value of bonds and stocks.....	57,487 50
Loans secured by bonds and stocks as collateral.....	1,500 00
Cash on hand and in bank.....	2,240 00
Premiums in course of collection.....	26,936 89
All other assets .....	507 50
Total admitted assets.....	<u>\$666,178 18</u>

## II. LIABILITIES.

Capital stock paid up.....	\$250,000 00
Reserved for reinsurance.....	116,879 04
Unpaid losses.....	19,856 37
Other liabilities.....	15,540 38
Total liabilities, including capital.....	\$402,275 79
Net surplus.....	\$263,902 39

## III. INCOME IN 1888.

From premiums received.....	\$194,970 89
From interests and dividends.....	26,377 72
From rents and all other sources.....	521 65
Total income.....	\$221,870 26
Excess of income over expenditures.....	\$42,910 71

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$61,113 24
Dividends.....	27,527 50
Commissions and brokerage.....	47,093 09
Salaries of officers and employes.....	18,276 25
Taxes.....	5,173 67
All other expenditures.....	19,775 80
Total expenditures.....	\$178,959 55

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$22,892,779 00
Premiums received thereon.....	174,923 25
Marine and inland risks written in 1888.....	1,770,364 00
Premiums received thereon.....	51,574 77
Total risks in force Dec. 31, 1888.....	\$23,758,338 00
Total premiums received from commencement to date.....	\$3,796,115 00
Total losses paid from commencement to date.....	1,945,679 00
Excess of premiums over losses.....	\$1,850,436 00

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$935,350 00
Premiums received.....	9,983 28

*Losses Paid.*

Fire.....	\$3,250 62
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*Losses Incurred.*

Fire.....	\$3,597 48
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## WESTCHESTER FIRE INSURANCE COMPANY.

Principal Office.....New York City

(Organized in 1837.)

GEORGE R. CRAWFORD, *President.*JNO. Q. UNDERHILL, *Secretary.*

Attorney to accept service in Minnesota, C. H. BIGELOW, St. Paul.

CASH CAPITAL, \$300,000.

## I. ASSETS.

Value of real estate owned.....	\$200,000 00
Loans secured by mortgages on real estate.....	354,895 13
Market value of bonds and stocks.....	873,700 00
Loans secured by bonds and stocks as collateral.....	5,500 00
Cash on hand and in bank.....	93,825 92
Premiums in course of collection.....	77,530 95
Total admitted assets.....	\$1,407,452 00

## II. LIABILITIES.

Capital stock paid up.....	\$300,000 00
Reserved for reinsurance.....	724,660 84
Unpaid losses.....	67,931 91
Total liabilities, including capital.....	\$1,092,592 75
Net surplus.....	\$314,859 25

## III. INCOME IN 1888.

From premiums received.....	\$914,893 40
From interests and dividends.....	54,642 99
From rents and all other sources.....	144 00
Total income.....	\$969,680 39
Excess of income over expenditures.....	\$66,821 63

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$532,777 27
Dividends.....	30,000 00
Commissions and brokerage.....	176,997 61
Salaries of officers and employes.....	36,407 99
Taxes.....	20,127 59
All other expenditures.....	106,548 30
Total expenditures.....	\$902,858 76

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$134,711,056 00
Premiums received thereon.....	1,322,302 46
Marine and inland risks written in 1888.....	\$174,000 00
Premiums received thereon.....	2,068 88
Total risks in force Dec. 31, 1888.....	\$149,966,021 00
Total premiums received from commencement to date.....	12,978,703 92
Total losses paid from commencement to date.....	\$7,212,210 55
Excess of premiums over losses.....	\$5,766,493 37



## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,578,584 00
Premiums received.....	21,614 43

*Losses Paid.*

Fire.....	\$12,130 71
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*Losses Incurred.*

Fire.....	\$14,419 22
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## WESTERN INSURANCE COMPANY.

Principal Office..... Pittsburg, Pa.

(Organized in 1849.)

ALEXANDER MINICK, *President.*

W. P. HERBERT, *Secretary.*

Attorney to accept service in Minnesota, G. W. LAMSON, St. Paul.

CASH CAPITAL, \$300,000.

## I. ASSETS.

Value of real estate owned.....	\$45,000 00
Loans secured by mortgages on real estate.....	199,148 75
Market value of bonds and stocks.....	165,275 00
Cash on hand and in bank.....	23,361 30
Premiums in course of collection.....	12,512 93
All other assets.....	641 25
Total admitted assets.....	<u>\$445,939 23</u>

## II. LIABILITIES.

Capital stock paid up.....	\$300,000 00
Reserved for reinsurance.....	94,354 82
Unpaid losses.....	18,259 22
Other liabilities.....	3,934 61
Total liabilities, including capital.....	<u>\$416,548 65</u>
Net surplus.....	<u>\$29,390 58</u>

## III. INCOME IN 1888.

From premiums received.....	\$166,349 33
From interests and dividends .....	18,992 18
From rents and all other sources.....	904 17
Total income.....	<u>\$186,245 68</u>
Excess of income over expenditures.....	<u>\$1,226 90</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$136,428 20
Commissions and brokerage.....	27,716 34
Salaries of officers and employes.....	8,235 00
Taxes.....	6,418 85
All other expenditures.....	6,220 39
Total expenditures.....	\$185,018 78

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$15,576,656 00
Premiums received thereon.....	186,334 83
Marine and inland risks written in 1888.....	124,930 00
Premiums received thereon.....	792 56
Total risks in force Dec. 31, 1888.....	\$15,566,723 00
Total premiums received from commencement to date.....	\$2,869,474 11
Total losses paid from commencement to date.....	1,504,648 75
Excess of premiums over losses.....	\$1,364,825 86

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$954,180 00
Premiums received.....	17,539 56

*Losses Paid.*

Fire.....	\$16,197 39
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*Losses Incurred.*

Fire.....	\$16,094 92
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## WESTERN HOME INSURANCE COMPANY.

Principal Office.....Sioux City, Ia.

(Organized in 1883.)

W. L. JOY, *President.*

G. W. KINGSNORTH, *Secretary.*

Attorney to accept service in Minnesota, CHAS. SHANDREW, St. Paul.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Loans secured by mortgages on real estate.....	\$188,395 01
Loans secured by bonds and stocks as collateral.....	13,351 35
Cash on hand and in bank.....	56,987 90
Premiums in course of collection.....	28,125 02
All other assets.....	8,469 68
Total admitted assets.....	\$290,328 96

## ASSETS NOT ADMITTED.

Bills receivable for fire premiums.....	\$23,053 18
Furniture supplies, judgments and personal property.....	70,892 32
Total.....	<u>\$93,945 50</u>

## II. LIABILITIES.

Capital stock paid up .....	\$200,000 00
Reserved for reinsurance.....	70,377 31
Unpaid losses.....	8,374 60
Other losses.....	2,072 58
Total liabilities, including capital.....	<u>\$280,824 49</u>
Net surplus.....	<u>\$9,504 47</u>

## III. INCOME IN 1888.

From premiums received.....	\$124,949 61
From interests and dividends.....	12,743 54
From rents and all other sources.....	10,523 53
Total income.....	<u>\$148,216 68</u>
Excess of income over expenditures.....	<u>\$13,722 34</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$54,819 47
Dividends .....	20,000 00
Commissions and brokerage.....	28,961 32
Salaries of officers and employes.....	12,673 41
Taxes.....	1,562 04
All other expenditures.....	16,478 10
Total expenditures.....	<u>\$134,494 34</u>

## V. MISCELLANEOUS.

Fire risks written in 1888 .....	\$7,817,370 00
Premiums received thereon.....	151,805 02
Total risks in force Dec. 31, 1888.....	<u>\$10,891,534 00</u>
Total premiums received from commencement to date.....	<u>\$570,355 00</u>
Total losses paid from commencement to date.....	132,185 41
Excess of premiums over losses.....	<u>\$438,169 59</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$687,169 00
Premiums received.....	12,369 58

*Losses Paid.*

Fire .....	\$1,758 18
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*Losses Incurred.*

Fire.....	\$1,758 18
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## WILLIAMSBURGH CITY FIRE INSURANCE COMPANY.

Principal Office.....Brooklyn, N. Y.

(Organized in 1853.)

EDMUND DRIGGS, *President*.F. H. WAY, *Secretary*.

Attorney to accept service in Minnesota, G. W. LAMSON, St. Paul.

CASH CAPITAL, \$250,000.

## I. ASSETS.

Value of real estate owned.....	\$634,843 90
Loans secured by mortgages on real estate.....	277,292 61
Market value of bonds and stocks.....	343,141 15
Loans secured by bonds and stocks as collateral.....	950 00
Cash on hand and in bank.....	28,128 00
Premiums in course of collection.....	60,053 61
All other assets.....	21,132 00
Total admitted assets.....	<u>\$1,365,541 27</u>

## II. LIABILITIES.

Capital stock paid up.....	\$250,000 00
Reserved for reinsurance.....	434,124 19
Unpaid losses.....	52,840 89
Other liabilities.....	17,572 21
Total liabilities, including capital.....	<u>\$754,537 29</u>
Net surplus.....	<u>\$611,003 98</u>

## III. INCOME IN 1888.

From premiums received.....	\$554,792 41
From interests and dividends.....	30,075 88
From rents and all other sources.....	20,051 68
Total income.....	<u>\$604,919 97</u>
Excess of income over expenditures.....	<u>\$70,921 87</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$245,572 25
Dividends.....	50,015 00
Commissions and brokerage.....	133,068 77
Salaries of officers and employes.....	60,553 60
Taxes.....	6,165 77
All other expenditures.....	38,622 71
Total expenditures.....	<u>\$533,998 10</u>



## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$83,227,228 00
Premiums received thereon.....	659,805 55
Total risks in force Dec. 31, 1888 .....	\$99,968,178 00
Total premiums received from commencement to date.....	\$10,992,889 77
Total losses paid from commencement to date.....	5,595,405 08
Excess of premiums over losses.....	\$5,397,484 69

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

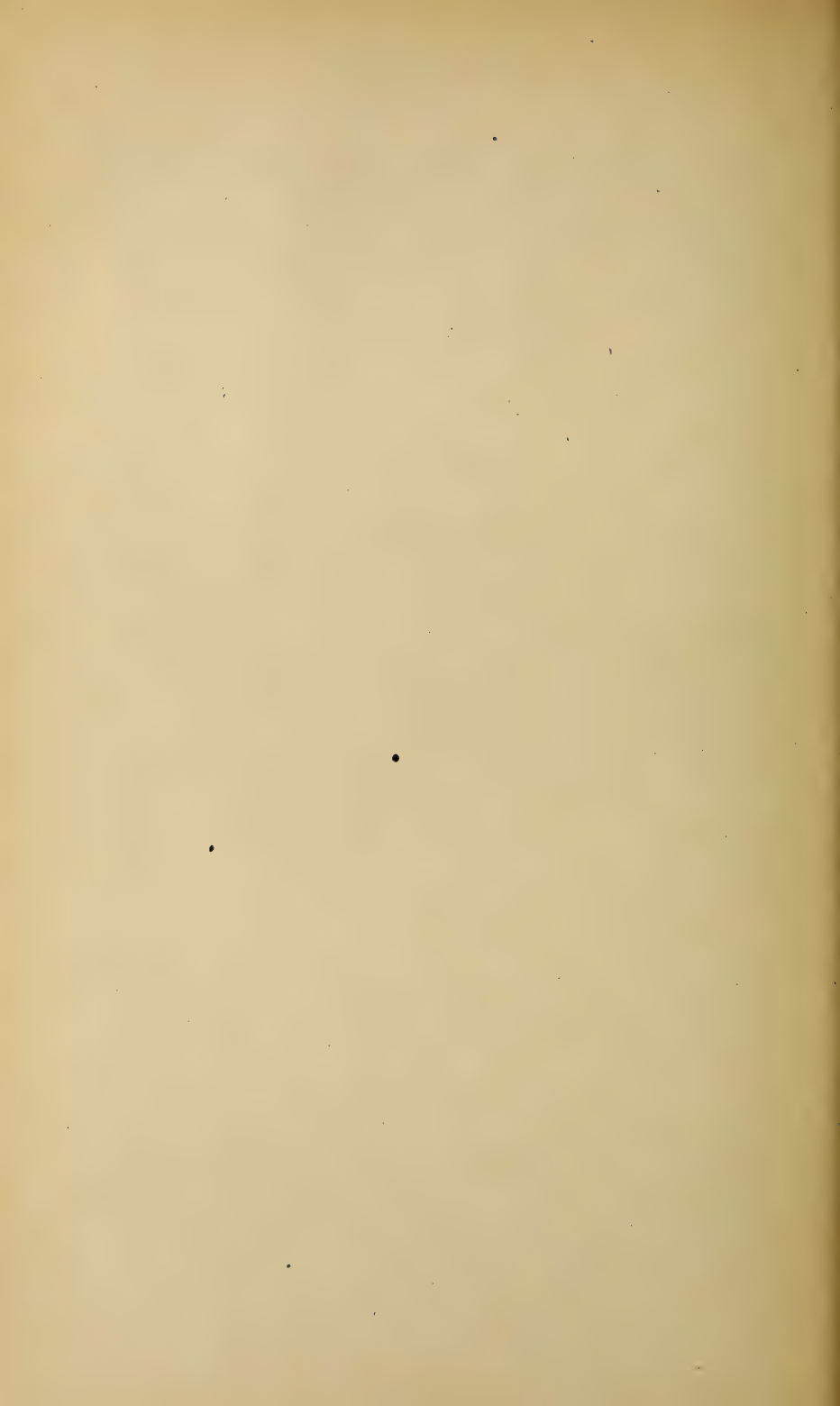
Risks written.....	\$1,390,024 00
Premiums received.....	16,703 91

*Losses Paid.*

Fire.....	\$4,848 24
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*Losses Incurred.*

Fire.....	\$5,446 70
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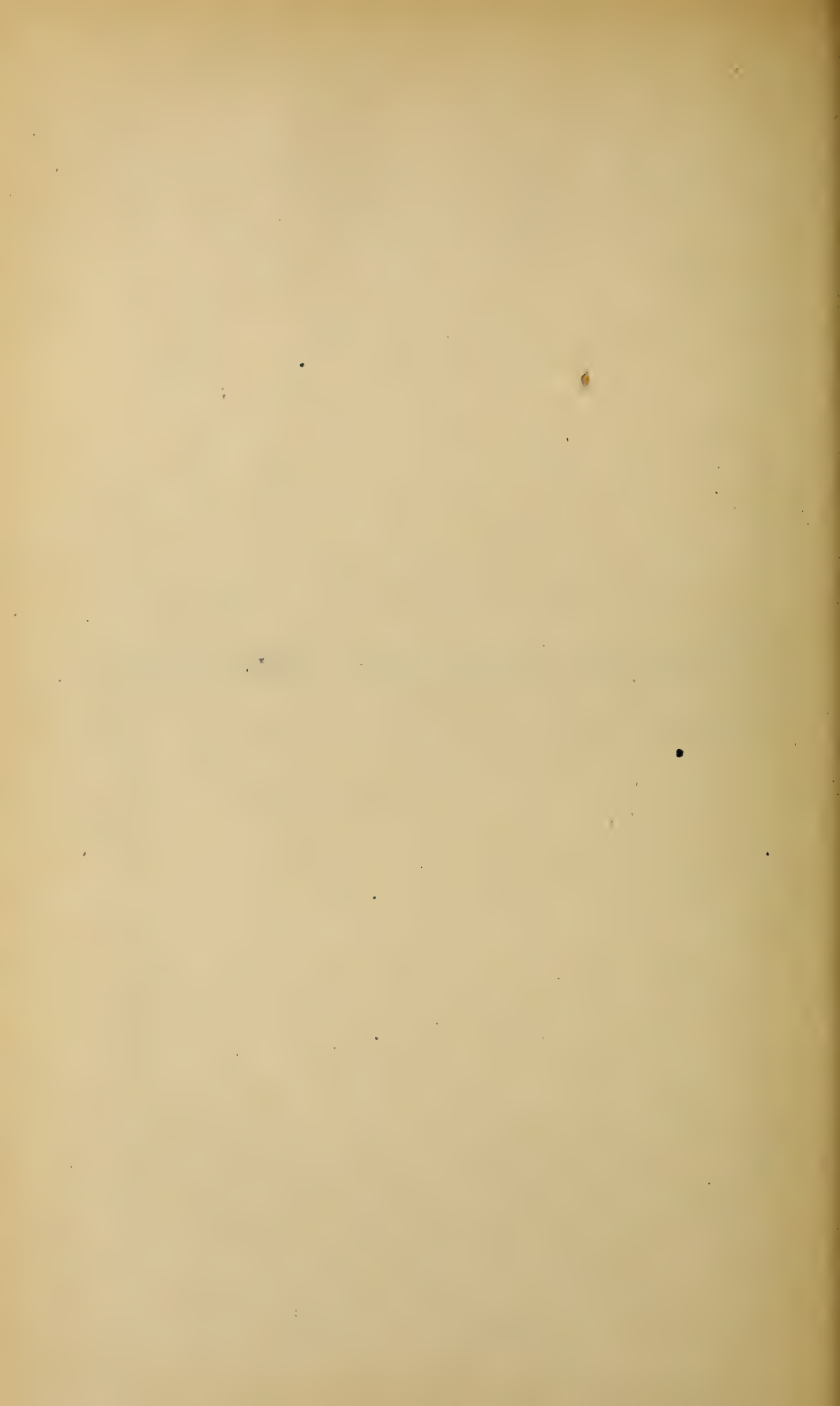
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FOREIGN INSURANCE COMPANIES.

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## UNITED STATES BRANCH.

## BRITISH AMERICA ASSURANCE COMPANY.

Principal Office.....Toronto, Canada.

(Organized in 1833.)

JOHN MORRISON, *President.*W. H. BANKS, *Secretary.*

Attorney to accept service in Minnesota, JOHN ROGERS, Jr., St. Paul.

## I. ASSETS.

Market value of bonds and stocks.....	\$707,746 01
Cash on hand and in bank.....	46,157 95
Premiums in course of collection.....	81,655 80
All other assets.....	5,915 03
Total admitted assets.....	\$841,474 79

## II. LIABILITIES.

Reserved for reinsurance.....	\$390,445 11
Unpaid losses.....	71,610 49
Other liabilities.....	17,466 80
Total liabilities, including capital.....	\$479,522 40
Net surplus.....	\$361,952 39

## III. INCOME IN 1888.

From premiums received.....	\$582,551 21
From interests and dividends.....	26,755 03
Total income.....	\$609,306 24
Excess of income over expenditures..	\$28,784 53

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$423,223 13
Commissions and brokerage.....	105,552 35
Salaries of officers and employes.....	12,333 03
Taxes.....	15,091 30
All other expenditures.....	24,321 90
Total expenditures.....	\$580,521 71

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$59,032,419 00
Premiums received thereon.....	623,099 89
Marine and inland risks written in 1888.....	14,889,461 00
Premiums received thereon.....	75,471 16
Total risks in force Dec. 31, 1888.....	\$59,821,100 00
Total premiums received from commencement to date.....	\$7,537,793 36
Total losses paid from commencement to date.....	4,742,557 50
Excess of premiums over losses.....	\$2,795,235 86

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written .....	\$998,146 00
Premiums received.....	18,372 84

*Losses Paid.*

Fire.....	\$17,695 23
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*Losses Incurred.*

Fire.....	\$14,621 11
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## UNITED STATES BRANCH.

## BRITISH AND FOREIGN MARINE INSURANCE COMPANY.

Principal Office.....Liverpool, England.

(Organized in 1863.)

L. ALLYN WIGHT, United States Manager, New York City.

Attorney to accept service in Minnesota, INSURANCE COMMISSIONER, St. Paul.

## I. ASSETS.

Market value of bonds and stocks.....	\$658,303 73
Cash on hand and in bank.....	55,949 96
Premiums in course of collection.....	125,483 63
All other assets.....	21,591 93
Total admitted assets.....	\$861,329 25

## II. LIABILITIES.

Reserved for reinsurance .....	\$137,780 49
Unpaid losses.....	89,262 27
Other liabilities.....	80,025 62
Total liabilities, including capital.....	\$307,068 38
Net surplus.....	\$554,260 87

## III. INCOME IN 1888.

From premiums received .....	\$768,020 43
From interests and dividends.....	80,198 23
Remittance from home office.....	164,105 56
From rents and all other sources.....	1,585 87
Total income.....	\$963,910 09
Excess of income over expenditures.....	\$23,420 73

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$240,721 86
Commissions and brokerage.....	89,968 51
Salaries of officers and employes.....	43,764 70
Taxes.....	17,655 05
Remitted to home office .....	548,879 24
Total expenditures.....	<u>\$940,489 36</u>

## V. MISCELLANEOUS.

Total risks in force Dec. 31, 1888.....	\$191,846,526 00
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## BUSINESS IN MINNESOTA IN 1888.

*Inland.*

Risks written.....	\$709,063 00
Premiums received.....	2,058 34

## UNITED STATES BRANCH.

## CITY OF LONDON FIRE INSURANCE COMPANY.

Principal Office.....	London, Eng.
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(Organized in 1881.)

JOHN C. PAIGE, United States Manager, Boston, Mass.

Attorney to accept service in Minnesota, C. H. BIGELOW, St. Paul.

## I. ASSETS.

Market value of bonds and stocks.....	\$625,640 00
Cash on hand and in bank.....	45,230 63
Premiums in course of collection.....	82,758 75
All other assets.....	644 46
Total admitted assets.....	<u>\$754,273 84</u>

## II. LIABILITIES.

Reserved for reinsurance.....	\$346,185 05
Unpaid losses.....	58,127 96
Other liabilities.....	15,245 27
Total liabilities, including capital.....	<u>\$419,558 28</u>
Net surplus.....	<u>\$334,715 56</u>

## III. INCOME IN 1888.

From premiums received .....	\$549,570 00
From interests and dividends.....	17,550 00
From rents and all other sources.....	470 78
Total income.....	<u>\$567,590 78</u>
Excess of income over expenditures.....	<u>\$31,844 76</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$334,595 49
Commissions and brokerage.....	102,781 50
Salaries of officers and employes.....	41,588 85
Taxes.....	19,582 36
All other expenditures.....	37,197 82
Total expenditures.....	\$535,746 02

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$53,274,841 00
Premiums received thereon.....	674,344 71
Total risks in force Dec. 31, 1888.....	\$49,964,698 00
Total premiums received from commencement to date.....	\$3,779,200 82
Total losses paid from commencement to date.....	2,439,471 32
Excess of premiums over losses.....	\$1,339,729 50

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written .....	\$605,021 00*
Premiums received.....	10,714 96

*Losses Paid.*

Fire.....	\$13,361 38
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*Losses Incurred.*

Fire.....	\$11,861 38
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## UNITED STATES BRANCH.

## COMMERCIAL UNION INSURANCE COMPANY.

Principal Office .....London, England.

ALFRED PELL, United States Manager, New York City.

Attorney to accept service in Minnesota, C. B. GILBERT, St. Paul.

## I. ASSETS.

Value of real estate owned.....	\$548,700 47
Market value of bonds and stocks .....	1,510,700 00
Cash on hand and in bank.....	351,761 08
Premiums in course of collection.....	384,415 69
All other assets.....	12,296 37
Total admitted assets.....	\$2,807,873 61



## II. LIABILITIES.

Reserved for reinsurance.....	\$1,631,993 36
Unpaid losses.....	185,074 10
Other liabilities.....	52,285 10
Total liabilities, including capital.....	\$1,869,352 56
Net surplus.....	\$938,520 95

## III. INCOME IN 1888.

From premiums received .....	\$2,287,615 65
From interests and dividends.....	56,658 26
From rents and all other sources.....	10,492 57
Total income.....	\$2,354,766 48
Excess of income over expenditures.....	\$218,117 77

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$1,402,519 92
Commissions and brokerage.....	428,518 00
Salaries of officers and employes.....	129,533 40
Taxes.....	47,644 06
All other expenditures.....	128,433 33
Total expenditures.....	\$2,136,648 71

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$253,690,397 00
Premiums received thereon.....	2,583,831 43
Marine and inland risks written in 1888.....	38,793,910 00
Premiums received thereon.....	286,241 32
Total risks in force Dec. 31, 1888.....	\$304,396,561 00
Total premiums received from commencement to date.....	\$22,332,412 08
Total losses paid from commencement to date.....	12,999,988 75
Excess of premiums over losses.....	\$9,332,423 33

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$2,928,161 00
Premiums received.....	41,856 67

*Inland.*

Risks written.....	\$2,106,000 00
Premiums received.....	8,570 06

*Losses Paid.*

Fire, \$25,390.64, inland, \$477.18; total.....	\$25,867 32
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*Losses Incurred.*

Fire, \$27,163.54; inland, \$477.18; total.....	\$27,640 72
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## UNITED STATES BRANCH.

## GUARDIAN FIRE ASSURANCE COMPANY.

Principal Office.....London, Eng.

(Organized in 1821.)

HENRY E. BOWERS, United States Manager, New York City.

Attorney to accept service in Minnesota, W. A. BARNES, Minneapolis.

CASH CAPITAL, \$200,000.

## I. ASSETS.

Loans secured by mortgages on real estate .....	\$70,651 25
Market value of bonds and stocks.....	1,225,437 50
Cash on hand and in bank.....	138,126 37
Premiums in course of collection.....	46,744 62
All other assets.....	11,254 17
Total admitted assets.....	\$1,492,213 91

## II. LIABILITIES.

Reserved for reinsurance .....	\$620,869 91
Unpaid losses.....	44,143 93
Other liabilities.....	14,595 13
Total liabilities, including capital.....	\$679,608 97
Net surplus.....	\$812,604 94

## III. INCOME IN 1888.

From premiums received.....	\$830,351 09
From interests and dividends.....	44,797 08
Total income.....	\$875,148 17
Excess of income over expenditures.....	\$98,358 13

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$422,486 87
Commissions and brokerage.....	\$166,239 14
Salaries of officers and employes.....	84,188 40
Taxes.....	19,955 85
All other expenditures.....	83,919 78
Total expenditures.....	\$776,790 04

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$109,075,279 00
Premiums received thereon.....	947,683 15
Total risks in force Dec. 31, 1888.....	\$128,711,101 00
Total premiums received from commencement to date.....	\$6,892,181 02
Total losses paid from commencement to date.....	3,273,330 48
Excess of premiums over losses.....	\$3,618,850 54

## BUSINESS IN MINNESOTA IN 1888

*Fire.*

Risks written.....	\$1,720,102 00
Premiums received.....	17,543 87

*Losses Paid.*

Fire.....	\$10,449 05
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*Losses Incurred.*

Fire.....	\$10,735 31
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## UNITED STATES BRANCH.

## HAMBURG BREMEN INSURANCE COMPANY.

Principal Office.....Hamburg, Germany.

(Organized in 1854.)

T. O. AFFELD, United States Manager, New York City.

Attorney to accept service in Minnesota, J. H. WEED, St. Paul.

## I. ASSETS.

Loans secured by mortgages on real estate.....	\$20,000 00
Market value of bonds and stocks.....	984,976 25
Loans secured by bonds and stocks as collateral .....	30,000 00
Cash on hand and in bank.....	49,395 63
Premiums in course of collection.....	59,895 67
All other assets.....	4,390 12
Total admitted assets.....	\$1,148,657 67

## II. LIABILITIES.

Reserved for reinsurance.....	\$663,805 82
Unpaid losses.....	62,925 00
Total liabilities, including capital.....	\$726,730 82
Net surplus.....	\$421,926 85

## III. INCOME IN 1888.

From premiums received.....	\$935,472 91
From interests and dividends.....	43,903 19
Total income.....	\$979,376 00
Excess of income over expenditures.....	\$40,893 41

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$615,760 09
Commissions and brokerage.....	171,044 36
Salaries of officers and employes.....	77,119 33
Taxes.....	21,654 25
All other expenditures.....	52,904 56
Total expenditures.....	\$938,482 59

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$104,815,555 00
Premiums received thereon.....	1,159,461 80
Total risks in force Dec. 31, 1888.....	\$106,053,238 00
Total premiums received from commencement to date.....	\$9,218,212 15
Total losses paid from commencement to date.....	5,285,174 97
Excess of premiums over losses.....	\$3,933,037 18

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,267,647 00
Premiums received.....	22,555 21

*Losses Paid.*

Fire.....	\$12,395 27
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*Losses Incurred.*

Fire.....	\$11,200 27
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## UNITED STATES BRANCH.

## IMPERIAL FIRE INSURANCE COMPANY.

Principal Office.....London, England.

(Organized in 1803.)

J. C. PAIGE, United States Manager, Boston, Mass.

Attorney to accept service in Minnesota, S. S. EATON, St. Paul.

## I. ASSETS.

Value of real estate owned.....	\$412,272 50
Market value of bonds and stocks.....	970,068 00
Cash on hand and in bank.....	71,486 50
Premiums in course of collection.....	154,546 18
All other assets.....	5,498 06
Total admitted assets.....	\$1,613,871 24



## II. LIABILITIES.

Reserved for reinsurance.....	\$715,093 16
Unpaid losses.....	112,259 03
Other liabilities.....	26,582 55
Total liabilities, including capital.....	\$853,934 74
Net surplus.....	\$759,936 50

## III. INCOME IN 1888.

From premiums received.....	\$1,017,415 29
From interests and dividends.....	24,144 35
From rents and all other sources.....	17,231 48
Total income.....	\$1,058,791 12
Excess of income over expenditures.....	\$82,401 81

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$617,167 17
Commissions and brokerage.....	185,882 33
Salaries of officers and employes.....	107,530 59
Taxes.....	37,314 09
All other expenditures.....	28,495 13
Total expenditures.....	\$976,389 31

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$109,120,892 00
Premiums received thereon.....	1,241,914 56
Total risks in force Dec. 31, 1888.....	\$117,068,388 00
Total premiums received from commencement to date.....	\$15,291,940 39
Total losses paid from commencement to date.....	10,114,280 73
Excess of premiums over losses.....	\$5,177,659 66

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,122,447 00
Premiums received.....	20,277 25

*Losses Paid.*

Fire.....	\$13,655 80
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*Losses Incurred.*

Fire.....	\$13,623 65
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## UNITED STATES BRANCH.

## LANCASHIRE INSURANCE COMPANY.

Principal Office.....Manchester, England.

E. LITCHFIELD, United States Manager, New York City.

Attorney to accept service in Minnesota, C. H. BIGELOW, St. Paul.

## I. ASSETS.

Market value of bonds and stocks.....	\$1,486,092 50
Cash on hand and in bank.....	104,157 87
Premiums in course of collection.....	116,162 31
Total admitted assets.....	\$1,706,412 18

## II. LIABILITIES.

Reserved for reinsurance.....	\$865,269 44
Unpaid losses.....	148,187 66
Other liabilities.....	12,000 00
Total liabilities, including capital.....	\$1,025,457 10
Net surplus.....	\$680,955 08

## III. INCOME IN 1888.

From premiums received.....	\$1,319,927 62
From interests and dividends.....	66,752 48
Total income.....	\$1,386,680 10
Excess of income over expenditures.....	\$37,496 38

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$897,393 27
Commissions and brokerage.....	254,720 91
Salaries of officers and employes.....	165,199 24
Taxes.....	31,870 30
Total expenditures.....	\$1,349,183 72

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$164,618,051 00
Premiums received thereon.....	1,590,805 25
Total risks in force Dec. 31, 1888.....	\$167,016,325 00
Total premiums received from commencement to date.....	\$14,399,866 00
Total losses paid from commencement to date.....	8,985,788 00
Excess of premiums over losses.....	\$5,414,078 00

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$979,477 00
Premiums received.....	25,187 87

*Losses Paid.*

Fire.....	\$24,220 56
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*Losses Incurred.*

Fire.....	\$21,520 56
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## UNITED STATES BRANCH.

## LION FIRE INSURANCE COMPANY.

Principal Office.....London, England.

(Organized in 1879.)

M. BEMENT, Jr., United States Manager, Hartford, Conn.

Attorney to accept service in Minnesota, J. J. WATSON, St. Paul.

## I. ASSETS.

Loans secured by mortgages on real estate.....	\$168,921 25
Market value of bonds and stocks.....	508,000 00
Loans secured by bonds and stocks as collateral....	9,500 00
Cash on hand and in bank.....	62,020 54
Premiums in course of collection.....	76,007 15
All other assets.....	4,900 87
Total admitted assets.....	\$829,349 81

## II. LIABILITIES.

Reserved for reinsurance.....	\$265,277 10
Unpaid losses.....	36,555 37
Other liabilities.....	12,256 35
Total liabilities.....	\$314,088 82
Net surplus.....	\$515,260 99

## III. INCOME IN 1888.

From premiums received.....	\$434,715 92
From interests and dividends.....	25,693 09
Total income.....	\$460,409 01
Excess of income over expenditures.....	\$46,988 70

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$274,313 26
Commissions and brokerage.....	74,448 99
Salaries of officers and employes.....	31,974 51
Taxes.....	10,566 69
All other expenditures.....	22,116 86
Total expenditures.....	<u>\$413,420 31</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$58,127,588 00
Premiums received thereon.....	722,800 58
Total risks in force Dec. 31, 1888.....	<u>\$37,313,019 00</u>
Total premiums received from commencement to date.....	\$3,200,287 87
Total losses paid from commencement to date.....	1,890,337 44
Excess of premiums over losses.....	<u>\$1,309,950 43</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,550,280 00
Premiums received.....	16,656 71

*Losses Paid.*

Fire.....	\$10,355 24
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*Losses Incurred.*

Fire.....	\$10,308 30
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## UNITED STATES BRANCH.

LIVERPOOL AND LONDON AND GLOBE INSURANCE  
COMPANY.

Principal Office.....Liverpool, Eng.

(Organized in 1836.)

H. W. EATON, United States Manager, New York City.

Attorney to accept service in Minnesota, JOHN S. PRINCE, St. Paul.

## I. ASSETS.

Value of real estate owned.....	\$1,500,000 00
Loans secured by mortgages on real estate.....	1,869,536 46
Market value of bonds and stocks..	2,351,975 00
Cash on hand and in bank.....	713,134 20
Premiums in course of collection.....	510,422 01
All other assets.....	28,744 24
Total admitted assets.....	<u>\$6,963,811 91</u>



## II. LIABILITIES.

Reserved for reinsurance.....	\$3,412,177 64
Unpaid losses.....	429,119 88
Other liabilities.....	121,987 11
Total liabilities, including capital.....	<u>\$3,963,284 63</u>
Net surplus.....	\$3,000,527 28

## III. INCOME IN 1888.

From premiums received.....	\$3,928,010 27
From interests and dividends.....	169,953 29
From rents and all other sources.....	68,962 46
Total income.....	<u>\$4,166,926 02</u>
Excess of income over expenditures.....	\$612,556 87

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$2,348,571 35
Commissions and brokerage.....	708,818 98
Salaries of officers and employes.....	218,525 14
Taxes.....	78,495 97
All other expenditures.....	199,957 71
Total expenditures.....	<u>\$3,554,869 15</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$526,848,540 00
Premiums received thereon.....	4,910,789 61
Total risks in force Dec. 31, 1888.....	<u>\$600,900,389 00</u>
Total premiums received from commencement to date.....	\$74,241,783 62
Total losses paid from commencement to date.....	44,316,329 16
Excess of premiums over losses.....	<u>\$29,925,454 46</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,787,497 00
Premiums received.....	33,341 35

*Losses Paid.*

Fire.....	\$28,889 62
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*Losses Incurred.*

Fire.....	\$27,749 62
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UNITED STATES BRANCH.  
LONDON ASSURANCE CORPORATION.

Principal Office ..... London, Eng.

(Organized in 1720.)

C. L. CASE, Western Manager, Chicago, Ill.

Attorney to accept service in Minnesota, ISAAC McNAIR, Minneapolis.

I. ASSETS.

Market value of bonds and stocks.....	\$1,416,720 75
Cash on hand and in bank.....	82,900 90
Premiums in course of collection.....	93,422 79
Total admitted assets .....	<u>\$1,593,044 44</u>

II. LIABILITIES.

Reserved for reinsurance.....	\$619,130 74
Unpaid losses.....	67,303 99
Total liabilities, including capital.....	<u>\$686,434 73</u>
Net surplus.....	<u>\$906,609 71</u>

III. INCOME IN 1888.

From premiums received.....	\$839,562 12
From interests and dividends.....	50,825 00
Total income.....	<u>\$890,387 12</u>
Excess of income over expenditure.....	<u>\$86,412 91</u>

IV. EXPENDITURES IN 1888.

Losses paid.....	\$511,343 46
Commissions and brokerage.....	165,039 02
Salaries of officers and employees.....	54,604 96
Taxes.....	20,363 11
All other expenditures.....	52,623 66
Total expenditures.....	<u>\$803,974 21</u>

V. MISCELLANEOUS.

Fire risks written in 1888.....	\$121,138,878 00
Premiums received thereon.....	979,157 74
Total risks in force Dec. 31, 1888.....	<u>\$132,721,126 00</u>
Total premiums received from commencement to date.....	\$9,924,309 54
Total losses paid from commencement to date.....	\$5,706,929 72
Excess of premiums over losses.....	<u>\$4,217,379 82</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1, 151, 184 00
Premiums received .....	16, 752 41

*Losses Paid.*

Fire.....	\$10, 397 73
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*Losses Incurred.*

Fire.....	\$10, 247 73
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## UNITED STATES BRANCH.

## LONDON AND LANCASHIRE INSURANCE COMPANY.

Principal Office.....Liverpool, England.

(Organized in 1861.)

JOHN S. BELDEN, Western Manager, Chicago, Ill.

Attorney to accept service in Minnesota, WM. H. HART, St. Paul.

## I. ASSETS.

Market value of bonds and stocks.....	\$1, 782, 893 00
Cash on hand and in bank.....	103, 796 39
Premiums in course of collection.....	183, 001 91
Total admitted assets.....	\$2, 019, 691 30

## II. LIABILITIES.

Reserved for reinsurance.....	\$1, 029, 146 83
Unpaid losses.....	152, 978 95
Other liabilities.....	8, 838 10
Total liabilities, including capital.....	\$1, 190, 963 88
Net surplus.....	\$828, 727 42

## III. INCOME IN 1888.

From premiums received.....	\$1, 482, 638 35
From interests and dividends.....	61, 451 80
Total income.....	\$1, 544, 090 15
Excess of income over expenditures.....	\$363, 460 75

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$680, 326 51
Commissions and brokerage.....	322, 484 15
Salaries of officers and employes.....	55, 360 64
Taxes.....	26, 637 46
All other expenditures.....	95, 820 64
Total expenditures.....	\$1, 180, 629 40

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$215,974 936 00
Premiums received thereon.....	1,897,367 82
Total risks in force Dec. 31, 1888.....	\$196,878,244 00
Total premiums received from commencement to date.....	\$9,748,058 49
Total losses paid from commencement to date.....	5,926,568 27
Excess of premiums over losses.....	\$3,821,490 22

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,084,424 00
Premiums received.....	18,021 18

*Losses Paid.*

Fire.....	\$8,018 89
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*Losses Incurred.*

Fire.....	\$3,533 89
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## UNITED STATES BRANCH.

## MANNHEIM INSURANCE COMPANY.

Principal Office.....Mannheim, Germany.

(Organized in 1879.)

HUGO MENZEL, United States Manager, New York City.

Attorney to accept service in Minnesota, A. F. GALE, Minneapolis.

## I. ASSETS.

Market value of bonds and stocks.....	\$254,000 00
Cash on hand and in bank.....	3,786 20
Premiums in course of collection.....	25,965 39
All other assets.....	1,391 70
Total admitted assets.....	\$285,143 29

## II. LIABILITIES.

Reserved for reinsurance.....	\$22,515 82
Unpaid losses.....	25,422 05
Other liabilities.....	2,310 04
Total liabilities, including capital.....	\$50,247 91
Net surplus.....	\$234,895 38

## III. INCOME IN 1888.

From premiums received.....	\$180,177 04
Excess of income over expenditures.....	\$42,590 18



## IV. EXPENDITURES IN 1888.

Losses paid.....	\$100,809 22
Commissions and brokerage.....	24,874 47
Taxes.....	4,090 25
All other expenditures.....	7,812 92
Total expenditures.....	\$187,586 86

## V. MISCELLANEOUS.

Marine and inland risks written in 1888.....	\$51,405,689 00
Premiums received thereon.....	227,760 82
Total risks in force Dec. 31, 1888.....	\$920,444 00

## BUSINESS IN MINNESOTA IN 1888.

*Inland.*

Risks written.....	\$1,378,486 00
Premiums received.....	3,931 06

## UNITED STATES BRANCH.

## MARINE INSURANCE COMPANY.

Principal Office.....London, Eng.

(Organized in 1836.)

C. A. MACDONALD, United States Manager, Chicago, Ill.

Attorney to accept service in Minnesota, INSURANCE COMMISSIONER, St. Paul.

## I. ASSETS.

Market value of bonds and stocks .....	\$508,000 00
Cash on hand and in bank.....	36,887 44
Premiums in course of collection.....	87,599 18
All other assets.....	4,893 29
Total admitted assets.....	\$637,379 91

## II. LIABILITIES.

Reserved for reinsurance.....	\$23,229 74
Unpaid losses.....	32,052 99
Other liabilities.....	40,242 41
Total liabilities, including capital.....	\$95,525 14
Net surplus.....	\$541,854 77

## III. INCOME IN 1888.

From premiums received.....	\$273,338 69
Total income.....	\$273,338 69
Excess of income over expenditures.....	\$118,652 56

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$107,517 53
Commissions and brokerage.....	30,537 34
Salaries of officers and employes.....	11,471 68
Taxes.....	5,159 58
Total expenditures.....	\$154,686 13

## V. MISCELLANEOUS.

Marine and inland risks written in 1888.....	\$107,652,790 00
Premiums received thereon.....	454,431 80
Total risks in force Dec. 31, 1888.....	\$3,092,792 00

## BUSINESS IN MINNESOTA IN 1888.

*Inland.*

Risks written.....	\$5,333,467 00
Premiums received.....	18,462 73

*Losses Paid.*

Inland.....	\$1,203 00
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*Losses Incurred.*

Inland.....	1,203 00
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## UNITED STATES BRANCH.

## NORTHERN ASSURANCE COMPANY.

Principal Office.....London, Eng.

(Organized in 1836.)

WM. D. CROOKE, Northwestern Manager, Chicago, Ill.

Attorney to accept service in Minnesota, JACOB STONE, Minneapolis.

## I. ASSETS.

Value of real estate owned.....	\$106,357 68
Market value of bonds and stocks.....	1,202,390 87
Cash on hand and in bank.....	84,492 76
Premiums in course of collection.....	108,232 03
Total admitted assets.....	\$1,496,473 34

## II. LIABILITIES.

Reserved for reinsurance.....	\$708,945 26
Unpaid losses.....	95,863 88
Other liabilities.....	17,834 00
Total liabilities, including capital.....	\$817,213 14
Net surplus.....	\$679,260 20

## III. INCOME IN 1888.

From premiums received.....	\$977, 479 42
From interests and dividends.....	44, 753 03
Total income.....	\$1, 022, 232 45
Excess of income over expenditures.....	\$43, 466 17

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$622, 030 42
Commissions and brokerage.....	167, 812 88
Salaries of officers and employes.....	72, 034 98
Taxes.....	25, 394 69
All other expenditures.....	91, 493 31
Total expenditures.....	\$978, 766 28

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$122, 281, 883 00
Premiums received thereon.....	1, 166, 955 11
Total risks in force Dec. 31, 1888.....	\$126, 469, 282 00
Total premiums received from commencement to date.....	\$8, 121, 067 72
Total losses paid from commencement to date.....	4, 823, 584 65
Excess of premiums over losses.....	\$3, 297, 483 07

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1, 167, 289 00
Premiums received.....	21, 033 15

*Losses Paid.*

Fire.....	\$15, 191 17
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*Losses Incurred.*

Fire.....	\$14, 618 95
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## UNITED STATES BRANCH.

NORTH BRITISH AND MERCANTILE INSURANCE  
COMPANY.

Principal Office.....London and Edinburgh.

(Organized in 1809.)

SAM. P. BLAGDON, United States Manager, New York City.

Attorney to accept service in Minnesota, S. C. GALE, Minneapolis.

## I. ASSETS.

Market value of bonds and stocks.....	\$3, 060, 356 00
Cash on hand and in bank.....	112, 959 16
Premiums in course of collection.....	237, 070 93
All other assets.....	62, 227 67
Total admitted assets.....	\$3, 472, 613 76

## II. LIABILITIES.

Reserved for reinsurance .....	\$1,427,931 26
Unpaid losses.....	168,651 72
Other liabilities.....	3,141 42
<b>Total liabilities.....</b>	<b>\$1,599,724 40</b>
Net surplus.....	\$1,872,889 36

## III. INCOME IN 1888.

From premiums received.....	\$1,934,291 34
From interests and dividends.....	118,245 88
<b>Total income.....</b>	<b>\$2,052,537 22</b>
Excess of income over expenditures.....	\$206,861 26

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$1,214,754 70
Commissions and brokerage.....	322,847 77
Salaries of officers and employes.....	195,415 77
Taxes .....	47,68 72
All other expenditures.....	64,970 00
<b>Total expenditures.....</b>	<b>\$1,845,675 96</b>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$255,524,616 00
Premiums received thereon.....	2,449,186 40
<b>Total risks in force Dec. 31, 1888.....</b>	<b>\$251,914,922 00</b>
Total premiums received from commencement to date.....	\$30,134,900 44
Total losses paid from commencement to date.....	19,515,951 38
<b>Excess of premiums over losses.....</b>	<b>\$10,618,949 06</b>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$2,588,402 00
Premiums received.....	39,378 00

*Losses Paid.*

Fire.....	\$31,908 12
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*Losses Incurred.*

Fire.....	\$28,227 62
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## UNITED STATES BRANCH.

## NORWICH UNION INSURANCE COMPANY.

Principal Office.....Norwich, Eng.

(Organized in 1879.)

J. MONTGOMERY HARE, United States Manager, New York City.

Attorney to accept service in Minnesota, JACOB STONE, Minneapolis.

## I. ASSETS.

Market value of bonds and stocks.....	\$1,135,461 71
Cash on hand and in bank.....	199,483 67
Premiums in course of collection.....	61,537 64
All other assets.....	14,961 50
Total admitted assets.....	\$1,411,444 52

## II. LIABILITIES.

Reserved for reinsurance.....	\$686,308 12
Unpaid losses.....	115,304 79
Other liabilities.....	11,121 11
Total liabilities, including capital.....	\$812,734 02
Net surplus.....	\$598,710 50

## III. INCOME IN 1888.

From premiums received.....	\$943,131 07
From interests and dividends.....	37,903 86
Total income.....	\$981,034 93
Excess of income over expenditures.....	\$96,263 60

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$566,972 23
Commissions and brokerage.....	167,409 55
Salaries of officers and employes.....	70,123 99
Taxes.....	11,733 55
All other expenditures.....	68,532 01
Total expenditures.....	\$884,771 33

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$130,374,106 00
Premiums received thereon.....	1,207,784 48
Total risks in force Dec. 31, 1888.....	\$128,927,986 00
Total premiums received from commencement to date.....	\$6,559,665 59
Total losses paid from commencement to date.....	3,558,087 99
Excess of premiums over losses.....	\$3,001,577 60

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,159,245 00
Premiums received.....	20,968 85

*Losses Paid.*

Fire .....	\$9,559 89
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*Losses Incurred.*

Fire .....	\$8,559 05
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## UNITED STATES BRANCH.

## PHOENIX ASSURANCE COMPANY.

Principal Office.....London, Eng.

(Organized in 1879.)

A. D. IRVING, United States Manager, New York City.

Attorney to accept service in Minnesota, C. H. BIGELOW, St. Paul.

## I. ASSETS.

Market value of bonds and stocks.....	\$1,539,430 00
Cash on hand and in bank.....	145,886 23
Premiums in course of collection .....	173,557 35
Total admitted assets.....	\$1,858,873 58

## II. LIABILITIES.

Reserved for reinsurance.....	\$1,093,976 87
Unpaid losses.....	188,004 00
Other liabilities.....	43,817 43
Total liabilities, including capital.....	\$1,325,798 30
Net surplus.....	\$533,075 28

## III. INCOME IN 1888.

From premiums received.....	\$1,364,416 58
From interests and dividends .....	36,940 00
Total income.....	\$1,401,356 58

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$947,598 25
Commissions and brokerage.....	276,880 01
Salaries of officers and employes.....	66,344 89
Taxes.....	43,612 23
All other expenditures.....	81,758 88
Total expenditures.....	\$1,416,194 26
Excess of expenditures over income.....	\$14,837 68

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$224,962,627 00
Premiums received thereon.....	1,856,102 32
Total risks in force Dec. 31, 1888.....	\$223,933,565 00
Total premiums received from commencement to date.....	\$10,530,946 78
Total losses paid from commencement to date .....	6,531,638 06
Excess of premiums over losses.....	\$3,999,308 72

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,508,705 78
Premiums received.....	27,493 60

*Losses Paid.*

Fire.....	\$9,966 81
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*Losses Incurred.*

Fire.....	\$10,318 00
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## • UNITED STATES BRANCH.

## QUEEN INSURANCE COMPANY.

Principal Office.....	Liverpool, England.
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(Organized in 1856.)

J. A. MACDONALD, United States Manager, Chicago, Ill.

Attorney to accept service in Minnesota, A. R. MCGILL, St. Paul.

## I. ASSETS.

Value of real estate owned.....	\$30,000 00
Market value of bonds and stocks.....	1,816,440 00
Cash on hand and in bank.....	245,407 14
Premiums in course of collection.....	33,670 30
All other assets .....	8,283 53
Total admitted assets.....	\$2,133,800 77

## II. LIABILITIES.

Reserved for reinsurance.....	\$1,139,792 54
Unpaid losses.....	133,807 54
Other liabilities.....	14,762 77
Total liabilities, including capital.....	\$1,288,362 85
Net surplus.....	\$845,437 92

## III. INCOME IN 1888.

From premiums received.....	\$1,393,909 87
From interests and dividends.....	64,022 27
From rents and all other sources.....	5,051 96
Total income.....	<u>\$1,462,984 10</u>
Excess of income over expenditures.....	<u>\$167,251 42</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$861,891 65
Commissions and brokerage.....	212,248 95
Salaries of officers and employes.....	92,496 01
Taxes.....	47,103 94
All other expenditures.....	81,992 13
Total expenditures.....	<u>\$1,295,732 68</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$169,156,969 00
Premiums received thereon.....	1,801,820 44
Total risks in force Dec. 31, 1888.....	<u>\$200,825,589 00</u>
Total premiums received from commencement to date.....	<u>\$20,744,939 00</u>
Total losses paid from commencement to date.....	13,241,630 00
Excess of premiums over losses.....	<u>\$7,503,309 00</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,390,301 00
Premiums received.....	24,040 33

*Losses Paid.*

Fire.....	\$23,706 02
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*Losses Incurred.*

Fire.....	\$23,907 95
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## UNITED STATES BRANCH.

## ROYAL INSURANCE COMPANY.

Principal Office.....Liverpool, England

(Organized in 1845.)

C. H. CASE, Northwestern Manager, Chicago, Ill.

Attorney to accept service in Minnesota, S. S. EATON, St. Paul.

## I. ASSETS.

Value of real estate owned.....	\$1,818,200 10
Market value of bonds and stocks.....	2,618,780 00
Cash on hand and in bank.....	328,711 82
Premiums in course of collection.....	433,809 21
All other assets.....	39,192 47
Total admitted assets.....	<u>\$5,233,693 60</u>

## II. LIABILITIES.

Reserved for reinsurance.....	\$2,548,922 41
Unpaid losses.....	290,502 06
Other liabilities.....	176,205 07
Total liabilities, including capital.....	<u>\$3,015,629 54</u>
Net surplus.....	<u>\$2,218,064 06</u>

## III. INCOME IN 1888.

From premiums received.....	\$2,854,853 07
From interests and dividends.....	109,721 55
From rents and all other sources.....	74,509 20
Total income.....	<u>\$3,039,083 82</u>
Excess of income over expenditures.....	<u>\$511,105 76</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$1,572,294 04
Commissions and brokerage.....	511,183 43
Salaries of officers and employes.....	161,309 76
Taxes.....	59,698 34
All other expenditures.....	223,492 49
Total expenditures.....	<u>\$2,527,978 06</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$439,093,584 00
Premiums received thereon.....	3,698,763 58
Total risks in force Dec. 31, 1888.....	<u>\$459,484,143 00</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,395,028 00
Premiums received.....	19,559 14

*Losses Paid.*

Fire.....	\$4,497 99
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*Losses Incurred.*

Fire. ....	\$4,577 49
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## UNITED STATES BRANCH.

## SCOTTISH UNION AND NATIONAL INSURANCE COMPANY.

Principal Office.....Edinburgh, Scotland.

(Organized in 1824.)

M. BEMENT, JR., United States Manager.....Hartford, Conn.

Attorney to accept service in Minnesota, J. J. WATSON, St. Paul.

## I. ASSETS.

Loans secured by mortgages on real estate.....	\$585,502 41
Market value of bonds and stocks.....	708,815 55
Cash on hand and in bank.....	164,291 61
Premiums in course of collection.....	58,950 32
All other assets.....	8,350 64
Total admitted assets.....	\$1,525,910 53

## II. LIABILITIES.

Reserved for reinsurance .....	\$326,545 81
Unpaid losses.....	46,321 26
Other liabilities.....	10,268 01
Total liabilities.....	\$383,135 08
Net surplus.....	\$1,142,775 45

## III. INCOME IN 1888.

From premiums received.....	\$473,023 08
From interests and dividends .....	53,796 83
Total income.....	\$526,819 91
Excess of income over expenditures.....	\$131,168 71

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$253,784 27
Commissions and brokerage.....	77,953 46
Salaries of officers and employes.....	28,285 00
Taxes.....	14,851 58
All other expenditures.....	20,776 89
Total expenditures.....	\$395,651 20

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$84,079,763 00
Premiums received thereon.....	912,658 37
Total risks in force Dec. 31, 1888.....	\$56,126,378 00
Total premiums received from commencement to date.....	\$3,278,592 41
Total losses paid from commencement to date.....	1,820,916 70
Excess of premiums over losses.....	\$1,457,675 71

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$2,610,585 00
Premiums received.....	26,956 13

*Losses Paid.*

Fire.....	\$11,624 14
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*Losses Incurred.*

Fire.....	\$12,482 64
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## UNITED STATES BRANCH.

## SEA INSURANCE COMPANY.

Principal Office.....Liverpool, England.

(Organized in 1875.)

C. A. MACDONALD, United States Manager, Chicago, Ill.

Attorney to accept service in Minnesota, A. McDOUGAL, Duluth

## I. ASSETS.

Market value of bonds and stocks.....	\$254,000 00
Cash on hand and in bank.....	21,626 06
Premiums in course of collection.....	44,933 24
Total admitted assets.....	\$320,559 30

## II. LIABILITIES.

Reserved for reinsurance.....	\$37,826 78
Unpaid losses.....	33,620 00
Other liabilities.....	10,146 51
Total liabilities, including capital.....	\$81,593 29
Net surplus.....	\$238,966 01

## III. INCOME IN 1888.

From premiums received.....	\$190,668 27
From interests and dividends.....	7,500 00
From rents and all other sources.....	1,118 60
Total income.....	\$199,286 87
Excess of income over expenditures..	\$110,399 88

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$69,319 24
Commissions and brokerage.....	12,366 21
Salaries of officers and employes.....	3,715 52
Taxes.....	3,486 02
Total expenditures.....	\$88,886 99

## V. MISCELLANEOUS.

Marine and inland risks written in 1888.....	\$48,679,422 00
Premiums received thereon.....	278,267 92
Total risks in force Dec. 31, 1888.....	\$4,758,574 00

## BUSINESS IN MINNESOTA IN 1888.

*Inland.*

Risks written.....	\$130,820 00
Premiums received.....	1,501 77
Losses paid.....	None
Losses incurred.....	None

## UNITED STATES BRANCH.

## SUN FIRE OFFICE INSURANCE COMPANY.

Principal Office.....London, England.

(Organized in 1710.)

J. J. GUILLE, United States Manager, New York City.

Attorney to accept service in Minnesota, R. F. MARVIN, St. Paul.

## I. ASSETS.

Value of real estate owned.....	\$30,000 00
Loans secured by mortgages on real estate.....	923,045 01
Market value of bonds and stocks.....	644,590 00
Cash on hand and in bank.....	171,859 66
Premiums in course of collection.....	146,592 01
All other assets.....	10,206 46
Total admitted assets.....	\$1,926,203 14



## II. LIABILITIES.

Reserved for reinsurance.....	\$898,672 46
Unpaid losses.....	95,131 00
Other liabilities.....	40,729 47
Total liabilities, including capital.....	<u>\$1,034,532 93</u>
Net surplus.....	\$891,670 21

## III. INCOME IN 1888.

From premiums received.....	\$1,102,063 92
From interests and dividends.....	59,006 91
Total income.....	<u>\$1,161,070 83</u>
Excess of income over expenditures.....	\$148,302 81

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$647,089 08
Commissions and brokerage.....	185,242 84
Salaries of officers and employes.....	60,150 61
Taxes.....	21,448 23
All other expenditures.....	98,837 26
Total expenditures.....	<u>\$1,012,768 02</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$128,177,333 00
Premiums received thereon.....	1,370,349 00
Total risks in force Dec. 31, 1888.....	<u>\$183,537,947 00</u>
Total premiums received from commencement to date.....	\$7,082,751 00
Total losses paid from commencement to date.....	4,575,790 00
Excess of premiums over losses.....	<u>\$2,486,961 00</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$3,170,000 00
Premiums received.....	35,922 00

*Losses Paid.*

Fire.....	\$32,534 00
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*Losses Incurred.*

Fire.....	\$33,298 00
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## UNITED STATES BRANCH.

## TRANSATLANTIC INSURANCE COMPANY.

Principal Office.....Hamburg, Ger.

(Organized in 1877.)

E. HARBERS, United States Manager, New York City.

Attorney to accept service in Minnesota, M. D. MILLER, St. Paul.

## I. ASSETS.

Market value of bonds and stocks.....	\$416,000 00
Loans secured by bonds and stocks as collateral.....	50,000 00
Cash on hand and in bank.....	26,866 87
Premiums in course of collection.....	25,486 09
Total admitted assets .....	\$518,352 96

## II. LIABILITIES.

Reserved for reinsurance.....	\$132,487 62
Unpaid losses.....	16,689 95
Other liabilities.....	3,501 47
Total liabilities, including capital.....	\$152,679 04
Net surplus.....	\$365,673 92

## III. INCOME IN 1888.

From premiums received .....	\$222,362 31
From interests and dividends.....	11,330 15
Total income.....	\$233,692 46
Excess of income over expenditures.....	\$6,646 89

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$142,221 56
Commissions and brokerage.....	46,184 28
Salaries of officers and employes.....	18,335 23
Taxes.....	3,592 13
All other expenditures .....	16,712 37
Total expenditures.....	\$227,045 57

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$24,605,546 00
Premiums received thereon .....	256,076 18
Total risks in force Dec. 31, 1888.....	\$24,367,200 00
Total premiums received from commencement to date.....	\$2,498,935 10
Total losses paid from commencement to date.....	1,597,815 60
Excess of premiums over losses .....	\$896,119 50

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$851,720 00
Premiums received.....	10,640 16

*Losses Paid.*

Fire.....	\$6,804 46
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*Losses Incurred.*

Fire .....	\$7,304 46
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## UNITED STATES BRANCH.

## UNION MARINE INSURANCE COMPANY.

Principal Office.....Liverpool, Eng.

(Organized in 1863.)

JONES & WHITLOCK, United States Managers, New York City.

Attorney to accept service in Minnesota, JACOB STONE, Minneapolis.

## I. ASSETS.

Market value of bonds and stocks .....	\$374,775 00
Cash on hand and in bank.....	18,721 64
Premiums in course of collection.....	32,407 16
All other assets.....	4,213 48
Total admitted assets.....	<u>\$430,117 28</u>

## II. LIABILITIES.

Reserved for reinsurance.....	\$31,204 15
Unpaid losses.....	30,492 74
Other liabilities.....	6,562 79
Total liabilities, including capital.....	<u>\$68,259 68</u>
Net surplus.....	<u>\$361,857 60</u>

## III. INCOME IN 1888.

From premiums received.....	\$275,658 47
From interests and dividends.....	12,047 22
Received from home office.....	18,059 22
From rents and all other sources.....	10,425 31
Total income.....	<u>\$316,190 22</u>
Excess of income over expenditures.....	<u>\$15,594 57</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$86,716 01
Commissions and brokerage.....	30,685 32
Salaries of officers and employes.....	4,075 00
Taxes.....	7,322 18
All other expenditures.....	5,792 70
Remitted to home office.....	166,004 44
Total expenditures.....	\$300,595 65

## V. MISCELLANEOUS.

Marine and inland risks written in 1888.....	\$47,868,874 00
Premiums received thereon.....	386,263 29
Total risks in force Dec. 31, 1888.....	\$1,959,567 00

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$671,710 00
Premiums received.....	3,540 75

## UNITED STATES BRANCH.

## WESTERN ASSURANCE COMPANY.

Principal Office.....Toronto, Canada.

(Organized in 1851.)

A. M. SMITH, *President.*

J. J. KENNY, *Secretary.*

Attorney to accept service in Minnesota, J. H. WEED, St. Paul.

## I. ASSETS.

Market value of bonds and stocks.....	\$832,202 50
Cash on hand and in bank.....	59,629 13
Premiums in course of collection.....	122,787 48
All other assets.....	46,726 21
Total admitted assets.....	\$1,061,345 32

## II. LIABILITIES.

Reserved for reinsurance.....	\$512,113 16
Unpaid losses.....	78,423 19
Other liabilities.....	16,015 75
Total liabilities, including capital.....	\$606,552 10
Net surplus.....	\$454,793 22



## III. INCOME IN 1888.

From premiums received.....	\$1,162,961 58
From interests and dividends.....	30,564 64
Total income.....	<u>\$1,193,526 22</u>
Excess of income over expenditures.....	<u>\$39,003 77</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$795,488 78
Commissions and brokerage.....	224,874 16
Salaries of officers and employes..	25,625 00
Taxes.....	26,610 50
All other expenditures.....	81,924 01
Total expenditures.....	<u>\$1,154,522 45</u>

## V. MISCELLANEOUS.

Fire risks written in 1888.....	\$72,232,651 00
Premiums received thereon.....	988,998 71
Marine and inland risks written in 1888.....	58,063,521 00
Premiums received thereon.....	509,064 30
Total risks in force Dec. 31, 1888.....	<u>\$70,855,403 00</u>
Total premiums received from commencement to date.....	<u>\$10,669,637 75</u>
Total losses paid from commencement to date.....	<u>7,137,738 04</u>
Excess of premiums over losses.....	<u>\$3,531,899 71</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fire.*

Risks written.....	\$1,160,460 00
Premiums received.....	24,053 27

*Inland.*

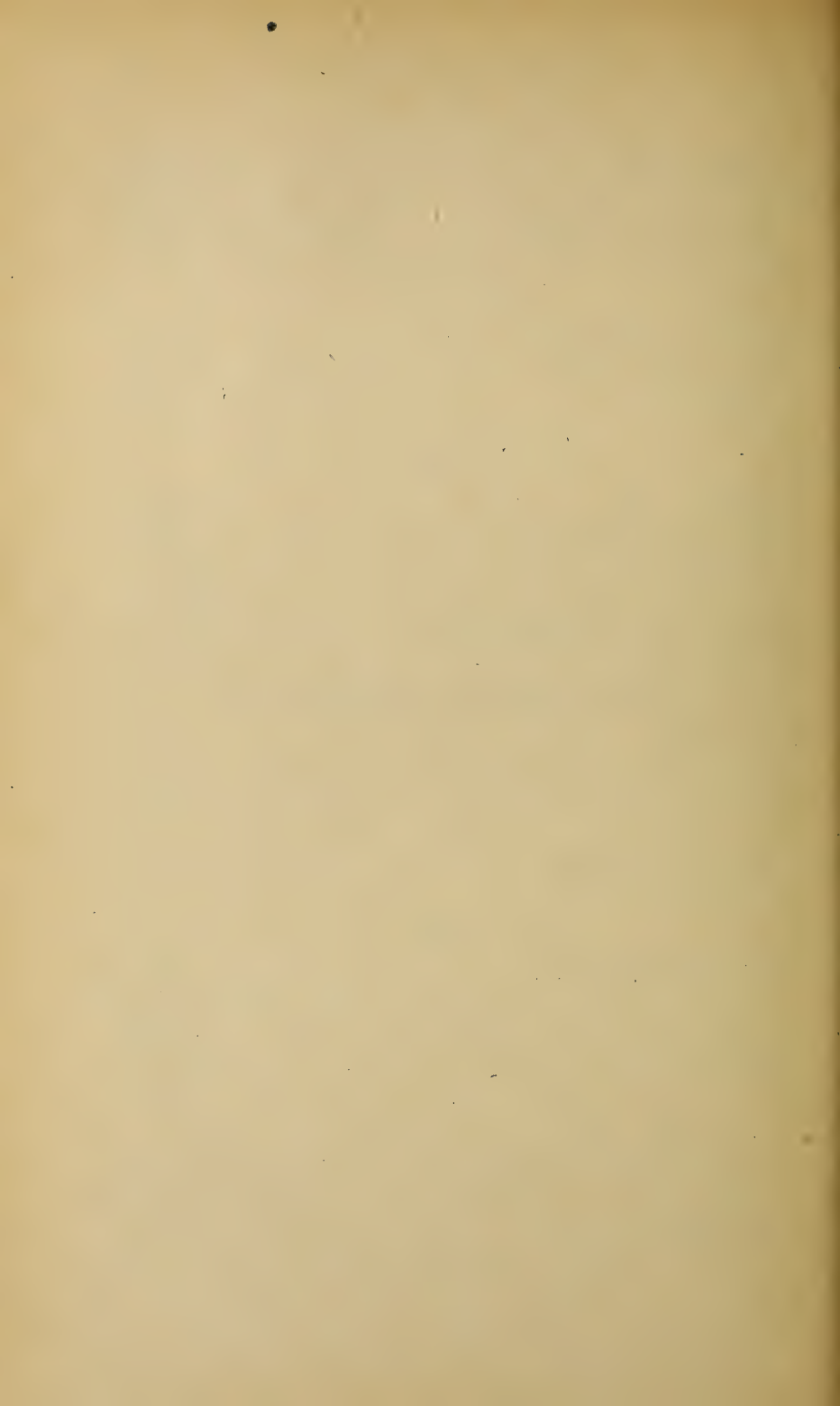
Risks written.....	\$1,232,051 00
Premiums received.....	4,479 93

*Losses Paid.*

Fire, \$10,555.16; inland, \$483.25; Total.....	\$11,038 41
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*Losses Incurred.*

Fire, \$12,200.16; inland, \$64.68; Total.....	\$12,264 84
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# MUTUAL INSURANCE COMPANIES.

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# BUCKEYE MUTUAL INSURANCE COMPANY OF SHELBY, OHIO.

(Organized Jan. 17, 1874.)

S. S. BLOOM, *President.*S. F. STAMBAUGH, *Secretary.*

Attorney, C. H. SPENCER, Minneapolis.

## ASSETS.

Face value of premium notes.....	\$231,313 00	
Net value of premium notes.....		\$170,913 00
Bonds and stocks.....		5,000 00
Cash on hand and in banks.....		18,263 30
Cash premiums (not more than three months due).....		5,175 50
Assessments in course of collection.....		2,970 82
All other assets.....		3,000 00
Total assets.....		\$205,322 82

## LIABILITIES.

Losses unpaid.....		\$4,750 00
Reserve for reinsurance, 50 per cent of cash premiums.....		16,824 42
All other liabilities.....		3,360 90
Total liabilities.....		\$23,935 32

## INCOME, 1888.

Premium notes received, face value.....	\$115,323 00	
Cash received from assessments.....		\$6,879 35
Premiums paid in advance.....		26,769 49
Total income.....		\$33,648 84

## EXPENDITURES, 1888.

Premium notes returned, face value.....	\$37,039 65	
Amount paid for losses.....		\$15,006 30
Commissions and brokerage.....		6,455 02
Salaries, officers and employes.....		2,836 76
Traveling expenses.....		3,303 75
Total expenditures.....		\$27,601 83

## MISCELLANEOUS.

Total premium notes received since organization.....	\$1,200,000 00
Total cash received on same since organization.....	376,296 34
Total losses paid since organization.....	217,815 06
Total risks in force Dec. 31, 1888.....	2,387,482 00
Total risks written during the year 1888.....	2,362,942 00

## BUSINESS IN MINNESOTA IN 1888.

Amount of risks written .....	\$219,920 00
Premium notes received, face value.....	8,870 00
Cash received on same.....	5,247 13
Losses paid.....	6 00
Losses incurred.....	6 00

# CENTRAL MANUFACTURERS MUTUAL FIRE INSURANCE COMPANY OF VAN WERT, OHIO.

(Organized, Oct. 2, 1876.)

J. S. BRUMBACK, *President.*

F. W. PURMOST, *Secretary.*

Attorneys, BOARDMAN & FERGUSON, Minneapolis.

## ASSETS.

Face value of premium notes.....	\$155,263 33	
Net value of premium notes.....		\$130,789 01
Mortgages on real estate.....		13,800 00
Bonds and stocks.....		5,000 00
Cash on hand and in banks.....		18,622 79
Cash premiums (not more than three months due).....		321 54
Accrued interest.....		313 69
Total assets.....		<u>\$168,847 03</u>

## LIABILITIES.

Losses unpaid.....	\$3,970 35
Reserve for reinsurance, 50 per cent of cash premiums.....	24,100 33
Total liabilities.....	<u>\$28,070 68</u>

## INCOME, 1888.

Premium notes received, face value.....	\$129,783 61	
Cash premiums received.....		62,394 31
Interest.....		872 21
Total income.....		<u>\$63,266 52</u>

## EXPENDITURES, 1888.

Premium notes returned, face value.....	\$100,275 40	
Cash premiums returned.....		\$13,642 93
Amount paid for losses.....		23,507 13
Paid for reinsurance.....		94 99
Salaries, officers and employes.....		8,839 66
All other expenditures.....		7,436 85
Total expenditures.....		<u>\$53,521 56</u>

## MISCELLANEOUS.

Total premium notes received since organization.....	\$1,684,282 17
Total cash received on same since organization.....	438,697 55
Total losses paid since organization.....	233,627 17
Total risks in force Dec. 31, 1888.....	2,681,872 00
Total risks written during the year 1888 ..	3,569,295 00

## BUSINESS IN MINNESOTA IN 1888.

Amount of risks written.....	\$329,900 00
Premium notes received, face value.....	16,700 05
Cash received on same.....	5,199 61

# COMMONWEALTH MUTUAL FIRE INSURANCE COMPANY OF DECATUR, ILL.

Organized June 30, 1883.

JAMES W. HAWORTH, *President.*JOHN A. BARNES, *Secretary.*

Attorney, C. H. SPENCER, Minneapolis.

## ASSETS.

Face value of premium notes.....	\$328,757 73	
Value of premium notes.....		\$249,590 65
Cash on hand and in banks.....		6,523 96
Cash premiums (not more than three months due).....		2,249 68
Assessments in course of collection.....		17,054 00
All other assets.....		2,542 50
Total assets.....		\$277,860 79

## LIABILITIES.

Losses unpaid.....	\$8,987 78	
Reserve for reinsurance, 50 per cent of cash premiums.....	31,050 13	
Rent and salaries.....	366 66	
All other liabilities.....	592 87	
Total liabilities.....		\$40,987 44

## INCOME, 1888.

Premium notes received, face value.....	\$134,641 74	
Cash collected on same.....		\$19,280 36
Cash received from assessments.....		41,610 91
Cash premiums received.....		1,208 99
Interest, \$1,537.14; other items, \$1,327.73; total.....		2,864 87
Total income.....		\$64,965 13

## EXPENDITURES, 1888.

Premium notes returned, face value.....	\$139,746 00	
Amount paid for losses.....		\$69,915 69
Paid for reinsurance.....		175 82
Commissions and brokerage.....		5,451 92
Salaries, officers and employes.....		5,887 75
All other expenditures.....		6,154 55
Total expenditures.....		\$87,585 73

## MISCELLANEOUS.

Total premium notes received since organization.....	\$677,435 98	
Total cash received on same since organization.....	340,104 60	
Total losses paid since organization.....	237,766 70	
Total risks in force Dec. 31, 1888.....	4,021,323 00	
Total risks written during the year 1888.....	1,983,377 19	

## BUSINESS IN MINNESOTA IN 1888.

Amount of risks written.....	\$145,750 00	
Premium notes received, face value.....	12,290 00	
Cash received on same.....	\$2,372 20	
Cash received from assessments.....	3,133 03	5,505 23
Losses paid.....		4,493 76
Losses incurred.....		508 88

# DETROIT MANUFACTURERS MUTUAL FIRE INSURANCE COMPANY OF DETROIT, MICH.

(Organized June 10, 1887.)

NATHAN G. WILLIAMS, *President.*ANDREW P. COULTER, *Secretary.*

Attorney, C. H. SPENCER, Minneapolis.

## ASSETS.

Face value of premium notes .....	\$147,719 88	
Net value of premium notes .....		\$147,719 88
Collateral loans .....		10,000 00
Cash on hand and in banks .....		2,408 31
Cash premiums (not more than three months due) .....		1,083 95
Accrued interest .....		465 83
Due from agents .....		679 89
All other assets .....		1,846 67
Total assets .....		\$164,204 53

## LIABILITIES.

Losses unpaid .....	\$3,850 00	
Reserve for reinsurance, 50 per cent of cash premiums .....	16,237 45	
All other liabilities .....	208 89	
Total liabilities .....		\$20,296 34

## INCOME, 1888.

Premium notes received, face value .....	\$98,259 65	
Cash premiums received .....		\$32,474 90
Interest .....		465 83
Total income .....		\$32,940 73

## EXPENDITURES, 1888.

Premium notes returned, face value .....	\$49,526 20	
Cash premiums returned .....		\$3,633 54
Amount paid for losses .....		18,353 05
Paid for reinsurance .....		1,252 21
Commissions and brokerage .....		2,034 68
Salaries, officers and employes .....		5,654 07
Traveling expenses .....		774 23
All other expenditures .....		3,393 32
Total expenditures .....		\$35,095 10

## MISCELLANEOUS.

Total premium notes received since organization .....	\$197,246 08
Total cash received on same since organization .....	52,201 43
Total losses paid since organization .....	19,045 77
Total risks in force Dec. 31, 1888 .....	1,216,245 08
Total risks written during the year 1888 .....	475,488 08

## BUSINESS IN MINNESOTA IN 1888.

Amount of risks written .....	\$47,500 00
Premium notes received, face value .....	7,270 00
Cash received on same .....	1,454 00



# ILLINOIS MUTUAL INSURANCE COMPANY, OF ALTON, ILL.

(Organized March 31, 1879.)

MARCUS H. TOPPING, *President.*HENRY G. M. PIKE, *Secretary.*

Attorney, C. H. SPENCER, Minneapolis.

## ASSETS.

Face value of premium notes.....	\$378,611 70	
Net value of premium notes.....		\$272,988 76
Real estate owned by company.....		6,200 00
Mortgages on real estate.....		1,525 00
Bonds and stocks.....		10,825 00
Cash on hand and in banks.....		8,413 06
Cash premiums (not more than three months due).....		7,002 35
Assessments in course of collection.....		37,000 00
All other assets.....		1,525 51
Total assets.....		\$345,479 68

## LIABILITIES.

Losses unpaid.....	\$19,180 04
Reserve for reinsurance, 50 per cent of cash premiums.....	41,946 76
Total liabilities.....	\$61,126 80

## INCOME, 1888.

Premium notes received, face value.....	\$128,821 01
Cash collected on same.....	\$23,692 20
Cash received from assessments.....	42,205 16
Cash premiums received.....	58,724 71
Interest.....	400 59
Total income.....	\$125,022 66

## EXPENDITURES, 1888.

Premium notes returned, face value.....	\$114,145 21
Cash premiums returned.....	\$17,086 34
Amount paid for losses.....	65,673 94
Paid for reinsurance.....	7,918 86
Commissions and brokerage.....	11,248 29
Salaries, officers and employes.....	17,727 97
Traveling expenses.....	2,928 19
Taxes and all other expenditures.....	6,668 62
Total expenditures.....	\$129,202 21

## MISCELLANEOUS.

Total premium notes received since organization.....	\$1,020,002 79
Total cash received on same since organization.....	354,929 84
Total cash received on "stock" policies (cash premiums).....	112,920 96
Total losses paid since organization.....	301,683 96
Total risks in force Dec. 31, 1888.....	5,044,069 10
Total risks written during the year 1888.....	4,227,182 55

## BUSINESS IN MINNESOTA IN 1888.

Amount of risks written.....		\$211,860 00
Premium notes received, face value.....		8,156 25
Cash received on same.....	\$4,559 10	
Cash received from assessments.....	2,016 75	6,575 85
Losses paid.....		<u>2,506 26</u>

## MANUFACTURERS MUTUAL FIRE INSURANCE COMPANY OF INDIANAPOLIS, INDIANA.

(Organized July 1, 1886.)

A. H. NORDYKE, *President.*C. B. FUNSTON, *Secretary.*

Attorney, C. H. SPENCER, Minneapolis.

## ASSETS.

Face value of premium notes.....	\$200,700 65	
Net value of premium notes.....		\$181,135 76
Mortgages on real estate.....		5,800 00
Cash on hand and in banks.....		11,282 30
Cash premiums (not more than three months due).....		4,260 35
Assessments in course of collection.....		19,564 89
Accrued interest.....		123 50
All other assets.....		<u>782 86</u>
Total assets.....		\$222,949 66

## LIABILITIES.

Losses unpaid.....		\$16,461 98
Reserve for reinsurance, 50 per cent of cash premiums.....		32,096 33
All other liabilities.....		<u>1,998 61</u>
Total liabilities.....		\$50,556 92

## INCOME, 1888.

Premium notes received, face value.....	\$85,941 60	
Cash premiums received.....		\$90,141 81
Interest.....		<u>684 54</u>
Total income.....		\$90,826 35

## EXPENDITURES, 1888.

Premium notes returned, face value.....	\$53,231 08	
Cash premiums returned.....		\$25,949 15
Amount paid for losses.....		48,662 07
Paid for reinsurance.....		1,004 37
Commissions and brokerage.....		10,193 66
Salaries, officers and employes.....		6,043 06
Traveling expenses.....		1,806 00
Other expenditures.....		<u>8,354 70</u>
Total expenditures.....		\$102,013 01

## MISCELLANEOUS.

Total premium notes received since organization.....	\$284,380 78
Total losses paid since organization.....	76,662 09
Total risks in force Dec. 31, 1888.....	2,880,483 18
Total risks written during the year 1888.....	2,458,248 76

## BUSINESS IN MINNESOTA IN 1888.

Amount of risks written.....	\$176,425 00
Premium notes received, face value.....	5,920 00
Cash received.....	5,925 83
Losses paid.....	3,223 87
Losses incurred.....	1,164 80

## MANUFACTURERS AND MERCHANTS MUTUAL FIRE INSURANCE COMPANY OF ROCKFORD, ILL.

(Organized Feb. 11, 1881.)

HENRY W. PRICE, *President.*GEO. S. ROPER, *Secretary.*

Attorneys, BOARDMAN &amp; FERGUSON, St. Paul.

## ASSETS.

Face value of premium notes.....	\$197,640 81	
Net value of premium notes.....		\$197,640 81
Mortgages on real estate.....		18,200 00
Collateral loans.....		13,500 00
Cash on hand and in banks.....		29,191 13
Cash premiums (not more than three months due) .....		3,395 16
Accrued interest.....		1,098 63
Total assets.....		\$263,025 73

## LIABILITIES.

Losses unpaid.....	\$6,809 81
Reserve for reinsurance, fifty per cent of cash premiums.....	34,787 52
Due for cash premiums advanced.....	579 73
Total liabilities.....	\$42,177 06

## INCOME, 1888.

Premium notes received, face value.....	\$134,816 77	\$134,816 77
Cash premiums received .....		66,179 87
Interest.....		1,806 06
Total income.....		\$202,802 70

## EXPENDITURES, 1888.

Premium notes returned, face value.....	\$79,806 77
Cash premiums returned.....	17,359 04
Amount paid for losses.....	28,552 85
Paid for reinsurance.....	83 32
Commissions and brokerage.....	11,445 24
Salaries, officers and employes.....	6,680 00
All other expenditures.....	5,730 61
Total expenditures.....	\$149,667 83

## MISCELLANEOUS.

Total premium notes received since organization.....	\$789,110 44
Total cash received on same since organization.....	351,456 75
Total cash received on "stock" policies (cash premiums).....	66,179 87
Total losses paid since organization.....	199,463 91
Total risks in force Dec. 31, 1888.....	3,700,351 00
Total risks written during the year 1888.....	4,015,559 00

## BUSINESS IN MINNESOTA IN 1888.

Amount of risks written .....	\$319,000 00
Premium notes received, face value.....	11,760 55
Cash premiums received.....	8,353 05

## MERCHANTS AND MANUFACTURERS MUTUAL FIRE INSURANCE ASSOCIATION OF CLINTON, IOWA.

(Organized Sept. 1, 1887.)

L. B. WADLEIGH, *President.*D. L. RYDER, *Secretary.*

Attorney, C. SHANDREW, St. Paul.

## ASSETS.

Face value of premium notes.....	\$121,376 69	
Net value of premium notes.....		\$97,354 44
Cash on hand and in banks.....		19,809 88
Cash premiums (not more than three months due).....		3,546 38
Assessments in course of collection.....		110 68
Accrued interest.....		12 50
All other assets.....		285 00
Total assets .....		\$121,118 88

## LIABILITIES.

Losses unpaid.....	\$1,729 40
Reserve for reinsurance, 50 per cent of cash premiums.....	17,271 26
Due for cash premiums advanced ..	683 35
Rent and salaries .....	35 00
Total liabilities.....	\$19,719 01

## INCOME, 1888.

Premium notes received, face value.....	\$131,619 78	\$105,904 19
Cash collected on same .....		25,715 59
Cash received from assessments .....		454 77
Cash premiums received.....		14,554 82
Interest.....		12 50
Total income.....		\$146,641 87



## EXPENDITURES, 1888.

Premium notes returned, face value.....	\$14,028 72	\$11,303 15
Cash premiums returned.....		6,182 65
Amount paid for losses.....		2,497 04
Paid for reinsurance.....		797 35
Commission and brokerage.....		2,740 46
Salaries, officers and employes.....		3,102 85
Traveling expenses.....		1,851 35
All other expenditures.....		1,193 59
Total expenditures.....		\$29,668 44

## MISCELLANEOUS.

Total premium notes received since organization.....	\$135,418 01
Total cash received on same since organization.....	26,749 51
Total cash received on "stock" policies (cash premiums).....	15,086 56
Total losses paid since organization.....	2,497 04
Total risks in force Dec. 31, 1888.....	1,154,917 50
Total risks written during the year 1888.....	1,501,130 98

## BUSINESS IN MINNESOTA IN 1888.

Amount of risks written .....	\$172,900 00
Premium notes received, face value.....	9,052 37
Cash received on same.....	2,479 43

## MERCHANTS AND MANUFACTURERS MUTUAL FIRE INSURANCE COMPANY OF MANSFIELD, OHIO.

(Organized Oct. 12, 1876.)

L. J. TRACY, *President*.M. E. DOUGLAS, *Secretary*.

Attorney, C. H. SPENCER, Minneapolis.

## ASSETS.

Face value of premium notes.....	\$140,093 70	
Net value of premium notes.....		\$105,965 46
Mortgages on real estate.....		840 45
Collateral loans.....		7,590 00
Cash on hand and in banks.....		7,583 72
Cash premiums (not more than three months due).....		2,495 40
Assessments in course of collection.....		2,493 62
Accrued interest .....		191 10
Total assets.....		\$127,159 75

## LIABILITIES.

Losses unpaid.....	\$1,000 00
Reserve for reinsurance, 50 per cent of cash premiums.....	11,650 82
All other liabilities.....	435 95
Total liabilities.....	\$13,086 77

## INCOME, 1888.

Premium notes received, face value.....	\$6,896 87	
Cash received from assessments.....		\$6,971 51
Cash premiums received.....		19,203 86
Total income.....		<u>\$26,175 37</u>

## EXPENDITURES, 1888.

Premium notes returned, face value.....	\$45,348 57	
Cash premiums returned.....		\$2,210 23
Amount paid for losses.....		5,678 50
Dividends to policy holders.....		663 50
Commissions and brokerage.....		3,337 61
Salaries, officers and employes.....		2,749 05
Traveling expenses.....		1,640 00
Total expenditures.....		<u>\$16,278 89</u>

## MISCELLANEOUS.

Total cash received on premium notes since organization.....	\$334,020 56
Total losses paid since organization.....	185,226 35
Total risks in force Dec. 31, 1888.....	1,377,764 00
Total risks written during the year 1888.....	888,281 00

## BUSINESS IN MINNESOTA IN 1888.

Amount of risks written.....	\$41,000 00
Premium notes received, face value.....	1,981 75
Cash received on same.....	866 75

## MILLERS MUTUAL FIRE INSURANCE COMPANY OF DE PERE, WISCONSIN.

(Organized Sept. 9, 1882.)

JOHN SCHUETTE, *President.*

E. W. ARNDT, *Secretary.*

Attorney, JOHN F. BYERS, Minneapolis.

## ASSETS.

Net value of premium notes.....	\$300,116 17
Bonds and stocks.....	5,250 00
Collateral loans.....	867 50
Cash on hand and in banks.....	10,587 83
Cash Premiums (not more than three months due).....	12,863 95
Accrued interest.....	175 00
Total assets.....	<u>\$329,860 45</u>

## LIABILITIES.

Losses unpaid.....	\$8,942 84
Reserve for reinsurance, 50 per cent of cash premiums.....	47,333 12
Total liabilities.....	<u>\$56,275 96</u>

## INSURANCE COMMISSIONER.

609

## INCOME, 1888.

Premium notes received, face value.....	\$131,530 47	
Cash premiums received.....		\$104,432 97
All other items.....		998,12
Total income.....		\$105,431 09

## EXPENDITURES, 1888.

Premium notes returned, face value.....	\$81,112 14	
Cash premiums returned.....		\$9,766 71
Amount paid for losses.....		59,016 65
Paid for reinsurance .....		795 44
Commissions and brokerage.....		6,801 54
Salaries, officers and employes.....		5,052 50
Traveling expenses.....		721 70
All other expenditures.....		7,807 31
Total expenditures.....		\$89,961 85

## MISCELLANEOUS.

Total premium notes received since organization.....	\$534,457 97
Total cash received on "stock" policies (cash premiums).....	104,432 97
Total losses paid since organization.....	163,191 31
Total risks in force Dec. 31, 1888.....	3,421 437 77
Total risks written during the year 1888.....	3,021 400 51

## BUSINESS IN MINNESOTA IN 1888.

Amount of risks written.....	\$259,000 00
Premium notes received, face value.....	12,490 00
Cash premiums received.....	6,946 00
Losses paid.....	\$49 61
Losses incurred.....	49 61

## MILLERS AND MANUFACTURERS MUTUAL FIRE INSURANCE COMPANY OF MINNEAPOLIS, MINN.

(Organized May 9, 1881.)

E. R. BARBER, *President.*C. B. SHOVE, *Secretary.*

## ASSETS.

Face value of premium notes.....	\$409,394 19	
Net value of premium notes.....		\$266 704 14
Real estate owned by company.....		6,500 00
Mortgages on real estate.....		13,250 00
Bonds and stocks.....		15,200 00
Collateral loans.....		19,050 00
Cash on hand and in banks.....		32,245 38
Cash premiums (not more than three months due).....		5,064 29
Accrued interest and rents.....		848 75
Due from other companies.....		3,751 44
All other assets.....		3,257 60
Total assets.....		\$365,871 60

## LIABILITIES.

Losses unpaid.....	\$9,083 33
Reserve for reinsurance, 50 per cent of cash premiums.....	62,367 32
Due for cash premiums advanced.....	26,574 35
Salaries.....	333 34
All other liabilities.....	333 67
Total liabilities.....	<u>\$98,692 01</u>

## INCOME, 1888.

Premium notes received, face value.....	\$195,650 56
Cash collected on same.....	\$51,282 24
Cash received from assessments.....	53,050 45
Cash premiums received.....	47,484 30
Premiums paid in advance.....	10,838 24
Interest (\$3,213.23), other items (\$2,147.34), total.....	<u>5,360 57</u>
Total income.....	<u>\$168,015 80</u>

## EXPENDITURES, 1888.

Premium notes returned, face value.....	\$186,558 16
Cash premiums returned.....	\$17,444 94
Amount paid for losses.....	62,055 21
Paid for reinsurance.....	6,092 96
Commissions and brokerage.....	22,312 71
Salaries, officers and employes.....	17,684 86
Traveling expenses and rent.....	17,720 86
Taxes and other expenditures.....	<u>13,147 06</u>
Total expenditures.....	<u>\$156,458 60</u>

## MISCELLANEOUS.

Total premium notes received since organization.....	\$1,203,614 48
Total cash received on same since organization.....	526,629 08
Total cash received on "stock" policies (cash premiums).....	142,777 77
Total losses paid since organization.....	327,588 95
Total risks in force Dec. 31, 1888.....	6,005,377 80
Total risks written during the year 1888.....	<u>5,213,664 63</u>

## BUSINESS IN MINNESOTA IN 1888.

Amount of risks written.....	\$304,700 00
Premium notes received, face value.....	2,975 75
Cash received on same.....	\$5,499 89
Cash received from assessments.....	13,556 07
Cash premiums received.....	<u>5,310 47</u>
Losses paid.....	<u>\$24,366 43</u>
Losses incurred.....	8,961 73
	<u>1,089 90</u>



# MILLERS NATIONAL MUTUAL INSURANCE COMPANY OF CHICAGO, ILL.

(Organized Sept. 1, 1869.)

C. H. SEYBT, *President.*W. L. BARNUM, *Secretary.*

Attorney, CHAS. SHANDREW, St. Paul.

## ASSETS.

Face value of premium notes.....	\$1,533,098 62	
Net value of premium notes.....		\$1,123,377 39
Bonds and stocks.....		260,450 00
Collateral loans.....		10,000 00
Cash on hand and in banks.....		28,912 24
Cash premiums (not more than three months due).....		2,156 20
Accrued interest due.....		1,443 25
Total assets.....		\$1,426,339 08

## LIABILITIES.

Losses unpaid.....		\$8,442 79
Reserve for reinsurance, 50 per cent of cash premiums.....		102,714 80
Commissions and brokerage.....		283 30
All other liabilities.....		44,663 73
Total liabilities.....		\$156,104 62

## INCOME, 1888.

Premium notes received, face value.....	\$457,947 44	
Cash collected on same.....		22,867 56
Cash received from assessments.....		165,818 65
Cash premiums received.....		16,743 40
Interest.....		11,371 19
Total income.....		\$216,800 80

## EXPENDITURES, 1888.

Premium notes returned, face value.....	\$315,653 00	
Amount paid for losses.....		119,146 47
Commissions and brokerage.....		2,595 69
Salaries, officers and employes.....		24,316 66
Other expenses.....		17,700 81
Total expenditures.....		\$163,759 63

## MISCELLANEOUS.

Total premium notes received since organization.....	\$4,046,026 89
Total cash received on same since organization.....	1,349,132 04
Total cash received on "stock" policies (cash premiums).....	16,743 40
Total losses paid since organization.....	896,088 01
Total risks in force Dec. 31, 1888.....	8,497,933 00
Total risks written during the year 1888.....	3,600,358 00

## BUSINESS IN MINNESOTA IN 1888.

Amount of risks written.....	\$200,900 00
Premium notes received, face value.....	32,755 00
Cash received on same.....	3,275 50

# MINNEAPOLIS MUTUAL FIRE INSURANCE COMPANY OF MINNEAPOLIS, MINN.

(Organized Dec. 1, 1885.)

B. F. NELSON, *President.*C. H. SPENCER, *Secretary.*

## ASSETS.

Face value of premium notes.....	\$327,311 38	
Net value of premium notes.....		\$201,287 34
Bonds and stock.....		300 00
Collateral loans.....		1,783 66
Cash on hand and in banks.....		35,733 15
Cash premiums (not more than three months due).....		16,089 93
Assessments in course of collection.....		1,398 37
Accrued interest.....		280 32
All other assets.....		2,500 00
Total assets.....		\$259,372 77

## LIABILITIES.

Losses unpaid.....	\$12,734 25
Reserve for reinsurance, 50 per cent of cash premiums.....	51,577 70
Total liabilities.....	\$64,311 95

## INCOME, 1888.

Premium notes received, face value .....	\$140,079 35	
Cash collected on same.....		\$28,015 87
Cash received from assessments.....		46,201 70
Cash premiums received.....		75,139 54
Interest, \$1,384.19; other items, \$188.51; total.....		1,572 70
Total income.....		\$150,929 81

## EXPENDITURES, 1888.

Premium notes returned, face value.....	\$81,050 06	
Cash premiums returned.....		\$16,310 52
Amount paid for losses.....		82,580 84
Paid for reinsurance.....		3,586 38
Commission and brokerage.....		15,938 22
Salaries, officers and employes.....		15,463 23
Traveling expenses.....		2,727 91
All other expenditures.....		6,951 85
Total expenditures.....		\$143,558 95

## MISCELLANEOUS.

Total premium notes received since organization.....	\$493,204 71
Total cash received on same since organization.....	246,053 68
Total cash received on "stock" policies (cash premiums).....	75,139 54
Total losses paid since organization.....	148,709 43
Total risks in force Dec. 31, 1888.....	5,888,676 47
Total risks written during the year 1888.....	1,301,057 20

## BUSINESS IN MINNESOTA IN 1888.

Amount of risks written.....		\$389,292 00
Premium notes received, face value.....		33,721 00
Cash received on same.....	\$5,553 44	
Cash received from assessments.....	10,520 04	
Cash premiums received.....	13,995 40	
		<u>\$30,068 88</u>
Losses paid.....		13,204 76
Losses incurred.....		4,329 29

MINNESOTA FIRE ASSOCIATION OF MINNEAPOLIS,  
MINN.

(Reorganized Aug. 1, 1881.)

E. R. BARBER, *President.*C. B. SHOVE, *Secretary.*

## ASSETS.

Face value of premium notes.....	\$36,565 16	
Net value of premium notes.....		\$36,565 16
Real estate owned by company.....		600 00
Mortgages on real estate.....		21,280 00
Bonds and stocks.....		6,500 00
Collateral loans.....		66,490 00
Cash on hand and in banks.....		6,520 22
Cash premiums (not more than three months due).....		7,829 21
Accrued interest.....		189 83
Due from agents.....		8,076 74
All other assets.....		432 81
Total assets.....		<u>\$154,483 97</u>

## LIABILITIES.

Losses unpaid.....	\$2,800 00
Reserve for reinsurance, 50 per cent of cash premiums.....	15,815 75
Contingent safety reserve fund.....	100,000 00
Total liabilities.....	<u>\$118,615 75</u>

## INCOME, 1888.

Premium notes received, face value.....	\$41,499 41
Cash collected on same.....	\$8,191 16
Cash premiums received.....	31,631 50
Interest, \$1,231.75; other items, \$862.04; total.....	2,093 79
Total income.....	<u>\$41,916 45</u>

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## EXPENDITURES, 1888.

Premium notes returned, face value.....	\$8,862 30	
Cash premiums returned.....		4,802 04
Amount paid for losses.....		12,019 16
Paid for reinsurance.....		46 06
Commissions and brokerage.....		4,075 37
Salaries, officers and employes.....		8,501 68
Traveling expenses, rent and interest.....		6,650 43
Other expenditures.....		701 23
Total expenditures.....		<u>\$36,795 97</u>

## MISCELLANEOUS.

Total premium notes received since reorganization.....	\$45,877 46
Total cash received on same since reorganization.....	10,490 52
Total cash received on "stock" policies (cash premiums) .....	28,236 31
Total losses paid since organization.....	13,702 28
Total risks in force Dec. 31, 1888.....	3,423,644 00
Total risks written during the year 1888.....	909,777 58

## BUSINESS IN MINNESOTA IN 1888.

Amount of risks written.....	\$2,136,418 00
Premium notes received, face value.....	14,920 00
Cash received on same .....	\$3,063 50
Cash received from assessments. ....	13,043 75
	<u>16,107 25</u>
Losses paid.....	8,643 13
Losses incurred .....	6,225 32

## MISSISSIPPI VALLEY MANUFACTURERS MUTUAL FIRE INSURANCE COMPANY OF ROCK ISLAND, ILL.

(Organized June 10, 1880.)

J. S. KEATOR, *President.*WM. B. FERGUSON, *Secretary.*

Attorney, C. H. SPENCER, Minneapolis.

## ASSETS.

Face value of premium notes.....	\$543,724 37	
Net value of premium notes.....		\$328,031 88
Bonds and stocks.....		17,800 00
Collateral Loans.....		30,500 00
Cash on hand and in banks.....		21,654 05
Cash premiums (not more than three months due).....		14,086 84
Assessments in course of collection.....		5,407 02
Accrued interest.....		450 00
Due from other agents.....		2,337 27
All other assets.....		1,000 00
Total assets.....		<u>\$421,267 06</u>



## LIABILITIES.

Losses unpaid.....	\$6,967 48
Reserve for reinsurance, 50 per cent of cash premiums.....	80,239 77
Total liabilities.....	<u>\$87,207 25</u>

## INCOME, 1888.

Premium notes received, face value.....	\$206,514 10
Cash collected on same.....	\$41,302 80
Cash received from assessments.....	82,927 87
Cash premiums received.....	75,721 34
Interest.....	2,878 89
Total income.....	<u>\$202,830 90</u>

## EXPENDITURES, 1888.

Premium notes returned, face value.....	\$113,653 50
Cash premiums returned and dividends.....	\$36,248 75
Amount paid for losses.....	115,807 29
Paid for reinsurance.....	3,224 42
Commissions and brokerage.....	14,386 70
Salaries, officers and employes.....	8,124 99
Traveling expenses.....	1,233 69
Taxes, \$1,254.75; other expenditures, \$10,437.11.....	Total, 11,691 86
Total expenditures.....	<u>\$190,717 70</u>

## MISCELLANEOUS.

Total premium notes received since organization.....	\$1,604,339 68
Total cash received on same since organization.....	880,906 11
Total losses paid since organization.....	492,651 73
Total risks in force Dec. 31, 1888.....	7,874,085 00
Total risks written during the year 1888.....	6,824,627 00

## BUSINESS IN MINNESOTA IN 1888.

Amount of risks written.....	\$708,150 00
Premium notes received, face value.....	25,865 00
Cash received on same.....	\$3,249.99
Cash received on assessments.....	<u>16,165.73</u>
Losses paid.....	\$19,415 72
Losses incurred.....	3,333 72
	3,333 72

# MUTUAL FIRE INSURANCE COMPANY OF CHICAGO, ILLINOIS.

(Organized, 1869.)

SILAS W. GARDINER, *President.*WM. E. SMITH, *Secretary.*

Attorney, H. P. TAYLOR, Minneapolis.

## ASSETS.

Face value of premium notes.....	\$450,640 62
Net value of premium notes.....	\$450,640 62
Mortgages on real estate.....	90,600 00
Bonds and stocks.....	2,100 00
Collateral loans.....	10,000 00
Cash on hand and in banks.....	21,878 41
Cash premiums (not more than three months due).....	16,277 67
Accrued interest.....	1,025 75
Total assets.....	\$592,522 45

## LIABILITIES.

Losses unpaid.....	\$40,256 25
Reserve for reinsurance, 50 per cent of cash premiums.....	94,941 53
Total liabilities.....	\$135,197 78

## INCOME, 1888.

Cash premiums received.....	\$250,500 79
Interest.....	4,472 54
Total income.....	\$254,973 33

## EXPENDITURES, 1888.

Premium notes returned, face value.....	\$169,537 80
Cash premiums returned.....	\$51,194 32
Amount paid for losses.....	106,699 12
Paid for reinsurance and dividends to members.....	9,423 41
Commissions and brokerage.....	34,590 70
Salaries, officers and employees.....	10,172 31
Traveling expenses.....	1,671 24
Other expenditures.....	19,872 68
Total expenditures.....	\$233,623 78

## MISCELLANEOUS.

Total cash received on "stock" policies (cash premiums).....	\$599,079 26
Total losses paid since organization.....	321,731 23
Total risks in force Dec. 31, 1888.....	7,743,957 78
Total risks written during the year 1888 ..	9,807,779 14

## BUSINESS IN MINNESOTA IN 1888.

Amount of risks written.....	\$844,713 35
Premium notes received, face value.....	21,067 50
Cash premiums received.....	18,089 46
Losses paid.....	17,255 41
Losses incurred.....	8,963 21

## MUTUAL UNION FIRE INSURANCE COMPANY OF MOLINE, ILL.

(Organized Sept. 27, 1886.)

C. H. DEERE, *President.*H. C. CLEVELAND, *Secretary.*

Attorney, CHAS. SHANDREW, St. Paul.

## ASSETS.

Face value of premium notes.....	\$238,886 75	
Net value of premium notes.....		\$158,876 76
Bonds and stocks.....		300 00
Collateral loans.....		10,000 00
Cash on hand and in banks.....		15,176 73
Cash premiums (not more than three months due).....		7,263 73
Assessments in course of collection.....		764 78
Accrued interest.....		400 00
All other assets.....		2,028 12
Total assets.....		\$194,310 12

## LIABILITIES.

Losses unpaid.....	\$6,890 49
Reserve for reinsurance, 50 per cent of cash premiums.....	40,707 27
All other liabilities.....	1,012 50
Total liabilities.....	\$48,610 26

## INCOME, 1888.

Premium notes received, face value .....	\$134,411 50	
Cash collected on same.....		\$27,329 03
Cash received from assessments.....		21,859 29
Cash premiums received.....		45,251 07
Interest.....		605 64
Total income.....		\$95,045 03

## EXPENDITURES, 1888.

Premium notes returned, face value.....	\$55,597 80	
Cash premiums returned.....		\$13,124 85
Amount paid for losses .....		50,030 52
Paid for reinsurance.....		2,669 67
Commissions and brokerage.....		7,778 69
Salaries, officers and employes.....		8,315 50
All other expenditures.....		6,223 99
Total expenditures.....		\$88,143 22

## MISCELLANEOUS.

Total losses paid since organization.....	\$85,760 52
Total risks in force Dec. 31, 1888.....	4,093,578 65
Total risks written during the year 1888.....	3,847,025 24

## BUSINESS IN MINNESOTA IN 1888.

Amount of risks written.....	\$206,750 00
Premium notes received, face value.....	11,438 05
Cash received on same.....	\$4,664 79 }
Cash received from assessments.....	2,619 64 }
Losses paid .....	1,027 91
Losses incurred.....	67 91

## NORTHWESTERN MUTUAL FIRE INSURANCE COMPANY OF ROCK ISLAND, ILL.

(Organized June 1, 1886.)

H. A. AINSWORTH, *President.*

W. B. FERGUSON, *Secretary.*

Attorney, C. H. SPENCER, Minneapolis.

## ASSETS.

Face value of premium notes.....	\$181,926 41
Net value of premium notes.....	\$145,541 14
Bonds and stocks.....	5,300 00
Collateral loans.....	17,000 00
Cash on hand and in banks.....	9,598 50
Accrued interest.....	427 07
Due from other companies.....	928 95
Total assets.....	\$178,795 66

## LIABILITIES.

Reserve for reinsurance, 50 per cent of cash premiums.....	\$15,312 69
Total liabilities.....	\$15,312 69

## INCOME, 1888.

Premium notes received, face value.....	\$82,249 05
Cash collected on same.....	\$15,182 44
Cash received from assessments.....	25,478 85
Interest.....	1,099 10
Total income.....	\$41,755 39

## EXPENDITURES, 1888.

Premium notes returned, face value.....	\$40,372 10
Cash premiums returned.....	\$3,977 87
Amount paid for losses.....	19,131 57
Paid dividends to policy holders.....	5,094 77
Commissions and brokerage.....	3,029 79
Other expenditures.....	2,162 62
Total expenditures.....	\$83,396 62



## MISCELLANEOUS.

Total premium notes received since organization.....	\$311,685 68
Total cash received on same since organization.....	96,665 79
Total losses paid since organization .....	36,702 31
Total risks in force Dec. 31, 1888.....	1,580,095 00
Total risks written during the year 1888.....	767,370 00

## BUSINESS IN MINNESOTA IN 1888.

Amount of risks written.....	\$118,100 00
Premium notes received, face value.....	2,681 66
Cash received on same.....	\$1,514 57 }
Cash received from assessments.....	3,257 70 }
	4,772 27

## OSHKOSH MUTUAL FIRE INSURANCE COMPANY OF OSHKOSH, WIS.

Organized Aug. 16, 1886.

R. McMILLEN, *President.*

M. R. SMITH, *Secretary.*

Attorney, C. H. SPENCER, Minneapolis.

## ASSETS.

Face value of premium notes.....	\$205,064 07	
Net value of premium notes.....		\$123,505 42
Cash on hand and in banks.....		13,617 94
Cash premiums (not more than three months due).....		12,286 86
Assessments in course of collection.....		718 85
Accrued interest.....		188 81
Loans on demand, notes secured by indorser.....		10,276 20
All other assets.....		1,800 00
Total assets.....		\$162,394 08

## LIABILITIES.

Losses unpaid.....	\$6,771 39
Reserve for reinsurance, 50 per cent of cash premiums.....	58,016 84
Due for cash premiums advanced.....	1,230 87
Commissions and brokerage.....	1,379 01
All other liabilities.....	248 89
Total liabilities.....	\$67,647 00

## INCOME, 1888.

Premium notes received, face value.....	\$73,057 56
Cash collected on same.....	\$14,611 50
Cash received from assessments.....	18,537 36
Cash premiums received.....	115,658 72
Other items.....	4,017 30
Total income.....	\$152,824 88

## EXPENDITURES, 1888.

Premium notes returned, face value.....	\$34,996 64	
Cash premiums returned.....		\$28,647 91
Amount paid for losses.....		68,772 20
Paid for reinsurance.....		4,125 98
Commissions and brokerage.....		22,668 05
Salaries, officers and employes.....		6,015 55
Traveling expenses.....		1,294 01
Taxes, \$894.45; other expenditures, \$8,583.09; total.....		9,477 54
Total expenditures.....		\$141,001 24

## MISCELLANEOUS.

Total premium notes received since organization.....	\$269,461 96
Total cash received on same since organization.....	76,418 41
Total cash received on "stock" policies (cash premiums and assessments).....	148,807 58
Total losses paid since organization.....	126,768 85
Total risks in force Dec. 31, 1888.....	2,277,062 00
Total risks written during the year 1888.....	5,156,047 00

## BUSINESS IN MINNESOTA IN 1888.

Amount of risks written.....	\$478,594 00
Premium notes received, face value.....	6,483 57
Cash received on same.....	\$1,296 72 )
Cash received from assessments.....	1,337 46 )
Cash premiums received.....	7,466 61 )
Losses paid.....	1,714 32
Losses incurred.....	1,714 32

## PACIFIC MUTUAL INSURANCE COMPANY OF ALTON, ILLINOIS.

(Organized June 6, 1887.)

MARCUS H. TOPPING, *President.*

HENRY G. M. PIKE, *Secretary.*

Attorney, C. H. SPENCER, Minneapolis.

## ASSETS.

Face value of premium notes.....	\$106,434 75	
Net value of premium notes.....		\$84,531 52
Bonds and stocks.....		5,412 50
Cash on hand and in banks.....		4,499 30
Cash premiums (not more than three months due).....		1,101 72
Assessments in course of collection.....		8,950 00
Total assets.....		\$104,495 04

## LIABILITIES.

Losses unpaid.....	\$1,839 85
Reserve for reinsurance, 50 per cent of cash premiums.....	10,316 51
Total liabilities.....	\$12,156 36

## INSURANCE COMMISSIONER.

621

## INCOME, 1888.

Premium notes received, face value.....	\$56,312 76	
Cash collected on same.....		\$16,263 14
Cash received from assessments.....		7,673 78
Interest.....		290 85
Total income.....		\$24,227 77

## EXPENDITURES, 1888.

Premium notes returned, face value.....	\$27,706 18	
Cash premiums returned.....		\$8,303 90
Amount paid for losses.....		11,974 13
Paid for reinsurance .....		419 72
Commissions and brokerage.....		2,402 45
Salaries, officers and employes.....		2,265 09
All other expenditures.....		1,279 66
Total expenditures.....		\$21,644 86

## MISCELLANEOUS.

Total premium notes received since organization.....	\$145,589 43
Total cash received on same since organization .....	29,140 85
Total losses paid since organization.....	14,688 47
Total risks in force Dec. 31, 1888.....	1,041,797 25
Total risks written during the year 1888.....	740,838 25

## BUSINESS IN MINNESOTA IN 1888.

Amount of risks written.....	\$18,000 00
Premium notes received, face value.....	2,271 25
Cash received on same.....	\$360 96 }
Cash received from assessments.....	392 57 }
	753 53

# PHOENIX MUTUAL INSURANCE COMPANY OF CINCINNATI, OHIO.

(Organized Sept. 23, 1875.)

E. C. GOSHORN, *President.*WM. A. HALL, *Secretary.*

Attorney, C. H. SPENCER, Minneapolis.

## ASSETS.

Face value of premium notes.....	\$386,311 01	
Net value of premium notes.....		\$267,343 85
Bonds and stocks.....		10,107 25
Cash on hand and in banks.....		2,280 22
Cash premiums (not more than three months due).....		1,944 20
Assessments in course of collection.....		25,291 62
All other assets.....		438 54
Total assets.....		\$307,405 68

## LIABILITIES.

Losses unpaid.....	\$10,400 87
Reserve for reinsurance, 50 per cent of cash premiums.....	31,352 86
Rent and salaries.....	865 54
Total liabilities.....	<u>\$42,619 27</u>

## INCOME, 1888.

Premium notes received, face value.....	\$114,416 39
Cash collected on same.....	\$23,775 41
Cash received from assessments.....	44,120 95
Cash premiums received.....	23,370 27
Other items.....	343 64
Total income.....	<u>\$91,610 27</u>

## EXPENDITURES, 1888.

Premium notes returned, face value.....	\$145,733 86
Cash premiums returned.....	\$4,785 50
Amount paid for losses.....	47,171 49
Paid for reinsurance.....	3,467 55
Commissions and brokerage.....	7,216 48
Salaries, officers and employes.....	5,160 29
Traveling expenses and rent.....	1,855 50
Other expenditures.....	475 50
Total expenditures.....	<u>\$70,132 31</u>

## MISCELLANEOUS.

Total cash premiums and assessments received since organization.....	\$449,284 20
Total losses paid since organization.....	243,668 76
Total risks in force Dec. 31, 1888.....	3,595,060 55
Total risks written during the year 1888.....	1,580,379 94

## BUSINESS IN MINNESOTA IN 1888.

Amount of risks written.....	\$144,500 00
Premium notes received, face value.....	11,117 13
Cash received on same.....	\$2,549 68 }
Cash received from assessments.....	1,649 56 }
Losses paid.....	960 00
Losses incurred.....	10 56



# PROTECTION MUTUAL FIRE INSURANCE COMPANY OF HYDE PARK, ILL.

(Organized Sept. 1, 1887.)

GEO. W. POWELL, *President.*C. E. WORTHINGTON, *Secretary.*

Attorney, C. B. SHOVE, Minneapolis.

## ASSETS.

Face value of premium notes.....	\$138,168 90	
Net value of premium notes.....		\$138,168 90
Cash on hand and in banks.....		16,618 81
Cash premiums (not more than three months due).....		1,478 94
Accrued interest.....		113 65
Due from other companies.....		356 50
Total assets.....		\$156,736 80

## LIABILITIES.

Losses unpaid (estimated).....	\$3,500 00	
Reserve for reinsurance, 50 per cent of cash premiums.....	14,517 78	
Rent and salaries.....	388 38	
Total liabilities.....		\$18,406 16

## INCOME, 1888.

Premium notes received, face value.....	\$158,514 21	
Cash premiums received.....	33,328 49	
Interest, \$75.01; other items, \$1,145.09; total.....	1,220 10	
Total income.....		\$193,062 80

## EXPENDITURES, 1888.

Premium notes returned, face value.....	\$77,030 62	
Cash premiums returned, \$5,542.30; dividends, \$4,084.51; total.....	9,626 81	
Amount paid for losses.....	3,010 70	
Paid for reinsurance.....	141 63	
Salaries, officers and employees.....	8,989 10	
Traveling expenses.....	3,993 56	
Other expenditures.....	1,881 79	
Total expenditures.....		\$104,674 21

## MISCELLANEOUS.

Total premium notes received since organization.....	\$215,199 52	
Total cash received on "stock" policies (cash premiums).....	56,828 05	
Total losses paid since organization.....	4,709 96	
Total risks in force Dec. 31, 1888.....	1,894,315 57	
Total risks written during the year 1888.....	2,241,400 57	

## BUSINESS IN MINNESOTA IN 1888.

Amount of risks written.....	\$108,900 00	
Premium notes received, face value.....	16,212 50	
Cash received on same.....	2,497 47	
Losses paid.....	None	
Losses incurred.....	None	

# RELIANCE MUTUAL FIRE INSURANCE COMPANY OF DUBUQUE, IOWA.

(Organized Nov. 19, 1885.)

W. H. DAY, *President.*D. A. HENDERSON, *Secretary.*

Attorney, C. H. SPENCER, Minneapolis.

## ASSETS.

Face value of premium notes.....	\$143,258 31	
Net value of premium notes.....		\$143,258 31
Mortgages on real estate.....		6,250 00
Bonds and stocks.....		300 00
Cash on hand and in banks.....		5,094 79
Cash premiums (not more than three months due).....		8,882 38
Accrued interest.....		330 00
All other assets.....		924 17
Total assets.....		\$165,039 65

## LIABILITIES.

Losses unpaid.....	\$3,518 67
Reserve for reinsurance, 50 per cent of cash premiums.....	28,631 40
Due for rent and salaries.....	65 00
All other liabilities.....	2,298 86
Total liabilities.....	\$34,513 43

## INCOME, 1888.

Premium notes received, face value.....	\$48,590 32
Cash collected on same.....	\$9,718 06
Cash received from assessments.....	19,021 53
Cash premiums received.....	42,023 00
Interest.....	266 89
Total income.....	\$71,029 48

## EXPENDITURES, 1888.

Premium notes returned, face value.....	\$74,552 59
Cash premiums returned.....	\$13,499 79
Amount paid for losses.....	40,007 81
Paid for reinsurance.....	3,843 18
Commissions and brokerage.....	8,068 81
Salaries, officers and employes.....	4,537 70
Traveling expenses.....	1,315 46
Taxes, \$567.81; other expenditures, \$4,198.92; total.....	4,761 73
Total expenditures.....	\$76,034 48

## MISCELLANEOUS.

Total premium notes received since organization.....	\$143,258 31
Total cash received on "stock" policies (cash premiums).....	286,456 72
Total losses paid since organization.....	110,652 89
Total risks in force Dec. 31, 1888.....	2,112,810 85
Total risks written during the year 1888.....	2,208,579 75

## BUSINESS IN MINNESOTA IN 1888.

Amount of risks written.....		\$194,600 00
Premium notes received, face value.....		5,502 50
Cash received on same.....	\$4,529 62 }	8,104 21
Cash received from assessments.....	3,574 59 }	
Losses paid .....		3,323 65
Losses incurred.....		None

## UNION MUTUAL INSURANCE COMPANY OF CINCINNATI, OHIO.

(Organized Oct. 1, 1888.)

WM. J. BREED, *President.*E. H. WILLIAMS, *Secretary.*

Attorney, CHAS. SHANDREW, St. Paul.

## ASSETS.

Face value of premium notes.....	\$156,613 35	
Collateral loans.....		\$15,000 00
Cash on hand and in banks.....		1,510 48
Cash premiums (not more than three months due).....		12,195 96
Accrued interest .....		34 52
Total assets.....		\$28,740 96

## LIABILITIES.

Losses unpaid.....	\$2,675 00
Reserve for reinsurance, 50 per cent of cash premiums.....	20,543 09
All other liabilities.....	38 25
Total liabilities.....	\$23,256 34

## INCOME, 1888.

Premium notes received, face value.....	\$156,613 35
Cash premiums received.....	\$32,536 51
Other items.....	593 43
Total income.....	\$33,129 94

## EXPENDITURES, 1888.

Amount paid for losses.....	4,522 35
Commissions and brokerage .....	3,980 27
Salaries, officers and employes.....	5,985 97
Other expenditures .....	2,130 87
Total expenditures.....	\$16,619 46

## MISCELLANEOUS.

Total premium notes received since organization.....	\$156,613 35
Total cash received on same since organization.....	42,433 67
Total losses paid since organization.....	4,522 35
Total risks in force Dec. 31, 1888.....	1,769,649 00
Total risks written during the year 1888.....	1,769,649 00

# WESTERN MANUFACTURERS MUTUAL INSURANCE COMPANY OF CHICAGO, ILL.

(Organized April 10, 1869.)

E. G. KEITH, *President.*

P. A. MONTGOMERY, *Secretary.*

Attorneys, BOARDMAN & FERGUSON, St. Paul.

## ASSETS.

Face value of premium notes.....	\$381,734 59	
Net value of premium notes.....		\$320,575 52
Mortgages on real estate.....		27,900 00
Bonds and stocks.....		44,270 00
Collateral loans.....		5,000 00
Cash on hand and in banks.....		51,035 76
Cash premiums (not more than three months due).....		6,596 75
Accrued interest.....		436 90
All other assets.....		493 48
Total assets.....		<u>\$456,308 41</u>

## LIABILITIES.

Losses unpaid.....	\$9,628 36
Reserve for reinsurance, 50 per cent of cash premiums.....	62,642 71
Due for cash premiums advanced.....	837 50
All other liabilities.....	7 50
Total liabilities.....	<u>\$73,116 07</u>

## INCOME, 1888.

Premium notes received, face value.....	\$381,734 59
Cash premiums received.....	176,256 87
Interest.....	4,729 76
Total income.....	<u>\$180,986 63</u>

## EXPENDITURES, 1888.

Cash premiums returned and dividends to policy holders.....	\$50,266 84
Amount paid for losses.....	43,499 01
Paid for reinsurance.....	8,438 23
Salaries, officers and employes.....	35,213 56
Taxes.....	1,329 52
Total expenditures.....	<u>\$138,747 16</u>

## MISCELLANEOUS.

Total cash received on "stock" policies since organization.....	\$1,012,030 25
Total losses paid since organization.....	495,721 61
Total risks in force Dec. 31, 1888.....	7,018,804 91
Total risks written during the year 1888.....	9,656,241 13

## BUSINESS IN MINNESOTA IN 1888.

Amount of risks written.....	\$192,400 00
Premium notes received, face value.....	27,007 85
Cash premiums received.....	11,415 75



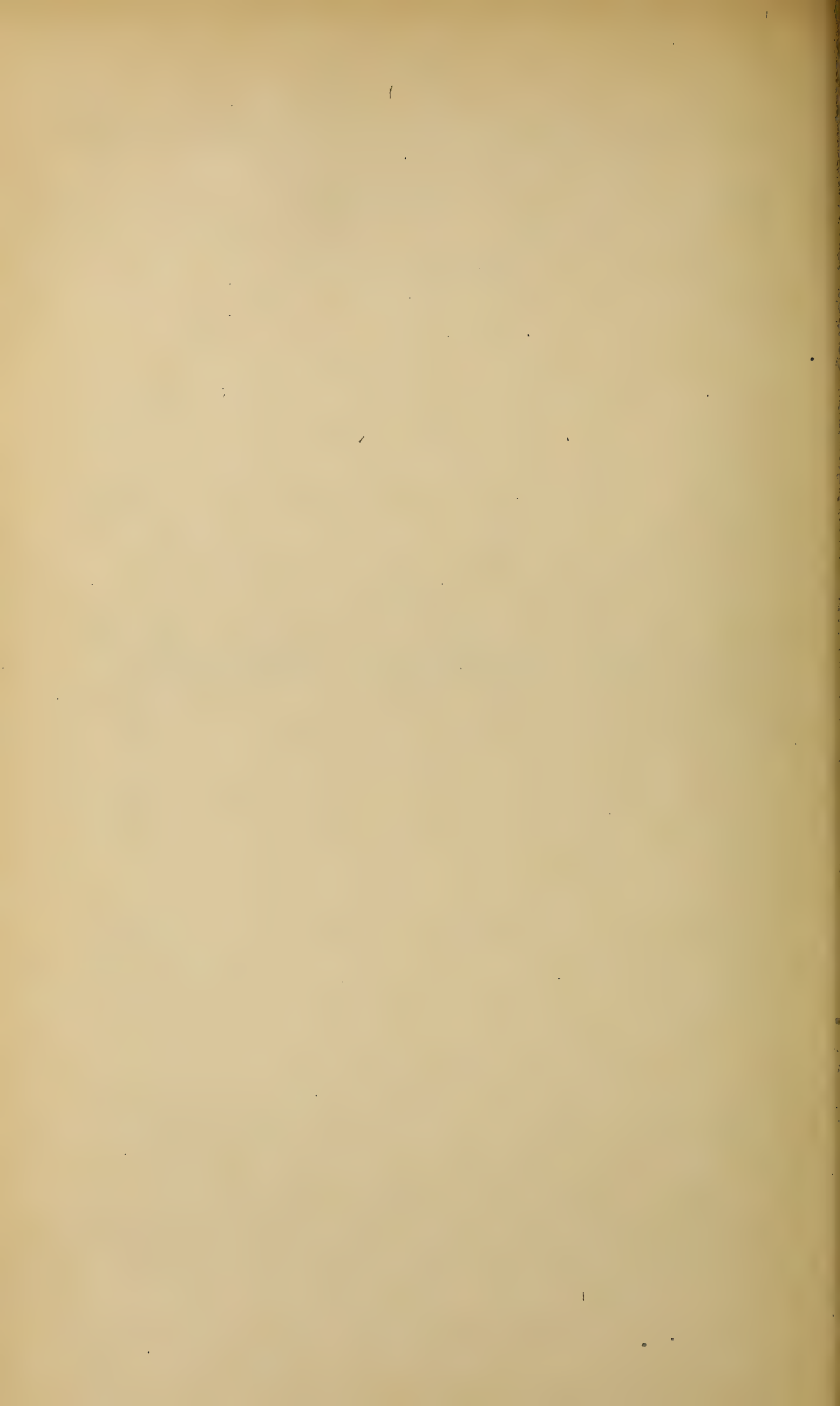
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CASUALTY INSURANCE COMPANIES.

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## AMERICAN STEAM BOILER INSURANCE COMPANY.

Principal Office.....New York City.

(Organized in 1883.)

WM. K. LOTHROP, *President*.V. R. SCHENCK, *Secretary*.

Attorney to accept service in Minnesota, E. M. CHRISTIAN, Minneapolis.

CASH CAPITAL, \$500,000.

## I. ASSETS.

Loans secured by mortgages on real estate.....	\$49,734 14
Market value of bonds and stocks.....	1,029,467 00
Loans secured by bonds and stocks as collateral.....	42,580 00
Cash on hand and in bank.....	56,006 69
Premiums in course of collection.....	118,348 93
All other assets.....	71,676 44
Total admitted assets.....	\$1,367,813 20

## II. LIABILITIES.

Capital stock paid up.....	\$500,000 00
Reserved for reinsurance.....	485,292 36
Other liabilities.....	8,640 00
Total liabilities, including capital.....	\$993,932 36
Net surplus.....	\$373,880 84

## III. INCOME IN 1888.

From premiums received.....	\$405,074 89
From interests and dividends.....	52,528 48
Total income.....	\$457,603 37
Excess of income over expenditures.....	\$77,504 42

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$33,212 91
Dividends.....	60,000 00
Commissions and brokerage.....	97,669 58
Salaries of officers and employes.....	25,367 68
Taxes.....	10,649 87
Inspectors' salaries and expenses.....	126,340 16
All other expenditures.....	26,858 75
Total expenditures.....	\$380,098 95

## V. MISCELLANEOUS.

Steam boiler risks written in 1888 .....	\$49,358,839 00
Premiums received thereon.....	494,838 07
Total risks in force Dec. 31, 1888.....	<u>\$63,183,582 00</u>
Total premiums received from commencement to date.....	\$1,186,172 98
Total losses paid from commencement to date.....	88,002 28
Excess of premiums over losses.....	<u>\$1,098,170 70</u>

## BUSINESS IN MINNESOTA IN 1888.

*Steam Boiler.*

Risks written.....	\$524,000 00
Inspections.....	1,581 55
Premiums received.....	3,690 28
Losses paid .....	None
Losses incurred.....	None

## AMERICAN SURETY COMPANY.

Principal Office.....New York City.

(Organized in 1884.)

WM. A. WHEELOCK, *President.*

F. F. NUGENT, *Secretary.*

Attorney to accept service in Minnesota, WM. PEET, Jr., Minneapolis.

CASH CAPITAL, \$1,000,000.

## I. ASSETS.

Loans secured by mortgages on real estate.....	\$87,000 00
Market value of bonds and stocks.....	1,113,750 00
Loans secured by bonds and stocks as collateral.....	6,000 00
Cash on hand and in bank.....	131,871 50
Premiums in course of collection.....	40,790 04
All other assets.....	6,566 86
Total admitted assets.....	<u>\$1,335,977 90</u>

## ASSETS NOT ADMITTED.

Bills receivable.....	\$2,568 94
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## II. LIABILITIES.

Capital stock paid up.....	\$1,000,000 00
Reserved for reinsurance.....	178,206 68
Unpaid losses.....	22,148 92
Other liabilities.....	1,312 51
Total liabilities, including capital.....	<u>\$1,201,668 11</u>
Net surplus.....	<u>\$134,809 79</u>



## III. INCOME IN 1888.

From premiums received .....	\$341,536 63
From interests and dividends.....	34,067 87
Total income.....	<u>\$375,604 50</u>
Excess of income over expenditures.....	\$87,937 01

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$78,543 77
Dividends.....	60,000 00
Commissions and brokerage.....	24,707 88
Salaries of officers and employes.....	63,136 14
Taxes.....	3,867 42
All other expenditures.....	57,412 28
Total expenditures.....	<u>\$287,667 49</u>

## V. MISCELLANEOUS.

Fidelity risks written in 1888.....	\$57,056,135 00
Premiums received thereon.....	363,195 23
Total risks in force Dec. 31, 1888.....	<u>\$54,680,363 00</u>
Total premiums received from commencement to date.....	952,901 18
Total losses paid from commencement to date.....	205,975 42
Excess of premiums over losses.....	<u>\$746,925 76</u>

## BUSINESS IN MINNESOTA IN 1888.

*Fidelity.*

Risks written.....	\$390,600 00
Premiums received.....	2,545 90
Losses paid.....	866 97
Losses incurred.....	598 81

## UNITED STATES BRANCH.

EMPLOYERS' LIABILITY ASSURANCE CORPORATION.  
(LIMITED.)

Principal Office.....London, Eng.

(Organized in 1881.)

ENDICOTT &amp; MACOMBER, United States Managers, Boston, Mass.

Attorney to accept service in Minnesota, INSURANCE COMMISSIONER, St. Paul.

## I. ASSETS.

Market value of bonds and stocks.....	\$203,540 00
Cash on hand and in bank.....	59,471 80
Premiums in course of collection.....	71,207 30
Total admitted assets.....	\$334,219 10

## II. LIABILITIES.

Reserved for reinsurance .....	\$174,261 60
Unpaid losses.....	35,765 00
Total liabilities, including capital.....	\$210,026 60
Net surplus.....	\$124,192 50

## III. INCOME IN 1888.

From premiums received.....	\$357,425 52
From interests.....	7,925 00
From rents and all other sources.....	62 15
Total income.....	\$365,412 67
Excess of income over expenditures.....	\$109,241 48

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$104,802 68
Commissions and brokerage.....	82,089 57
Salaries of officers and employes.....	15,651 80
Taxes.....	5,208 91
All other expenditures.....	48,418 23
Total expenditures.....	\$256,171 19

## V. MISCELLANEOUS.

Fidelity risks written in 1888.....	\$622,828 03
Premiums received thereon.....	50,006 82
Total risks in force Dec. 31, 1888.....	\$467,575 30
Total premiums received from commencement to date.....	\$574,946 62
Total losses paid from commencement to date.....	137,776 42
Excess of premiums over losses.....	\$437,170 20

## BUSINESS IN MINNESOTA IN 1888.

*Fidelity.*

Risks written.....	\$93,500 00
Premiums received.....	1,921 97
Losses paid.....	\$81 00
Losses incurred.....	81 00

## FIDELITY AND CASUALTY INSURANCE COMPANY.

Principal Office.....New York City.

(Organized in 1876.)

WM. M. RICHARDS, *President.*R. J. HILLAS, *Secretary.*

Attorney to accept service in Minnesota, CHARLES SHANDREW, St. Paul.

CASH CAPITAL, \$250,000.

## I. ASSETS.

Value of real estate owned.....	\$11,000 00
Market value of bonds and stocks.....	439,381 25
Loans secured by bonds and stocks as collateral.....	100,000 00
Cash on hand and in bank.....	67,845 96
Premiums in course of collection.....	123,256 65
All other assets.....	33,066 35
Total admitted assets.....	\$774,550 21

## II. LIABILITIES.

Capital stock paid up.....	\$250,000 00
Reserved for reinsurance.....	374,539 60
Unpaid losses.....	49,077 98
Other liabilities.....	48,843 24
Total liabilities, including capital.....	\$722,460 82
Net surplus.....	\$52,089 39

## ANNUAL REPORT

## III. INCOME IN 1888.

From premiums received.....	\$673,379 12
From interests and dividends.....	20,801 16
From rents and all other sources.....	252 00
Total income.....	<u>\$694,432 28</u>
Excess of income over expenditures.....	<u>\$89,935 41</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$231,249 73
Dividends.....	10,000 00
Commissions and brokerage.....	173,428 21
Salaries of officers and employes.....	69,697 74
Taxes.....	10,837 44
All other expenditures.....	109,283 75
Total expenditures.....	<u>\$604,496 87</u>

## V. MISCELLANEOUS.

Fidelity, accident, plate glass and steam boiler risks written in 1888.....	\$115,038,503 00
Premiums received thereon.....	891,296 43
Total risks in force Dec. 31, 1888.....	<u>\$91,630,543 00</u>
Total premiums received from commencement to date.....	\$3,688,904 54
Total losses paid from commencement to date.....	1,412,346 59
Excess of premiums over losses.....	<u>\$2,276,557 95</u>

## BUSINESS IN MINNESOTA IN 1888.

	Risks Written.	Premiums Rec'd.	Losses
Accident.....	\$641,650 00	\$3,408 81	\$732 02
Fidelity.....	250,000 00	1,882 37	.....
Plate glass.....	282,647 00	7,849 93	3,670 68
Steam boiler.....	7,000 00	62 50	.....



## GUARANTEE COMPANY OF NORTH AMERICA.

Principal Office.....Montreal, Canada

(Organized in 1872.)

A. T. GAULT, *Président.*ROBERT KERR, *Secretary.*

Attorney to accept service in Minnesota, A. R. MCGILL, St. Paul.

CASH CAPITAL, \$304,600.

## I. ASSETS.

Value of real estate owned.....	\$2,227 51
Loans secured by mortgages on real estate.....	\$30,756 53
Market value of bonds and stocks.....	473,359 70
Cash on hand and in bank.....	85,556 32
Premiums in course of collection.....	20,113 27
All other assets.....	9,460 98
Total admitted assets.....	\$621,474 31

## II. LIABILITIES.

Capital stock paid up.....	\$304,600 00
Reserved for reinsurance.....	\$111,339 78
Unpaid losses.....	24,718 54
Other liabilities.....	10,000 00
Total liabilities, including capital.....	\$450,658 32
Net surplus.....	\$170,815 99

## III. INCOME IN 1888.

From premiums received.....	\$212,544 07
From interests and dividends.....	22,660 56
Increase of capital.....	4,600 00
From rents and all other sources.....	7,303 87
Total income.....	\$247,108 50
Excess of income over expenditures.....	\$57,864 60

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$69,771 99
Dividends.....	18,073 09
Commissions and brokerage.....	4,065 88
Salaries of officers and employees.....	46,866 57
Taxes.....	4,380 77
All other expenditures.....	46,085 60
Total expenditures.....	\$189,243 90

## ANNUAL REPORT

## V. MISCELLANEOUS.

Guaranty risks written in 1888.....	\$45,871,939 00
Premiums received thereon.....	312,548 94
Total risks in force Dec. 31, 1888.....	\$30,737,758 00
Total premiums received from commencement to date.....	\$1,733,115 42
Total losses paid from commencement to date.....	610,895 53
Excess of premiums over losses.....	\$1,122,219 89

## BUSINESS IN MINNESOTA IN 1888.

*Guaranty.*

Risks written.....	\$964,800 00
Premiums received.....	4,577 91
Losses paid.....	\$625 77
Losses incurred.....	625 77

## HARTFORD STEAM BOILER AND INSPECTION INSURANCE COMPANY.

Principal Office.....Hartford, Conn

(Organized in 1886.)

J. M. ALLEN, *President.*J. B. PIERCE, *Secretary.*

Attorney to accept service in Minnesota, A. R. MCGILL, St. Paul.

CASH CAPITAL, \$500,000.

## I. ASSETS.

Loans secured by mortgages on real estate.....	\$420,771 26
Market value of bonds and stocks.....	652,103 56
Cash on hand and in bank.....	70,985 78
Premiums in course of collection.....	116,811 10
All other assets.....	14,442 32
Total admitted assets.....	\$1,275,114 02

## II. LIABILITIES.

Capital stock paid up.....	\$500,000 00
Reserved for reinsurance.....	600,245 00
Unpaid losses.....	5,844 92
Other liabilities.....	2,219 74
Total liabilities, including capital.....	\$1,188,309 66
Net surplus.....	\$86,804 36

## III. INCOME IN 1888.

From inspection fees and premiums received.....	\$614,367 00
From interests and dividends.....	54,622 79
From rents and all other sources.....	3,158 14
Total income.....	<u>\$672,147 93</u>
Excess of income over expenditures.....	<u>\$143,724 90</u>

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$40,811 52
Dividends.....	50,000 00
Commissions and brokerage.....	144,235 73
Salaries of officers and employes.....	22,950 00
Taxes.....	9,867 96
Inspection expenses.....	169,385 17
All other expenditures.....	91,172 92
Total expenditures.....	<u>\$528,423 03</u>

## V. MISCELLANEOUS.

Steam boiler risks written in 1888.....	\$62,211,702 00
Premiums received thereon.....	708,212 11
Total risks in force Dec. 31, 1888.....	<u>\$91,102,143 00</u>
Total premiums and inspection fees received from commencement to date...	\$4,839,912 72
Total losses paid from commencement to date.....	351,680 10
Excess of premiums over losses.....	<u>\$4,488,232 62</u>

## BUSINESS IN MINNESOTA IN 1888.

*Steam Boiler.*

Risks written.....	\$1,351,175 00
Premiums received and inspection fees.....	19,149 80
Losses paid.....	\$245 30
Losses incurred.....	245 30

## LLOYD'S PLATE GLASS INSURANCE COMPANY.

Principal Office.....New York City

(Organized in 1882.)

J. S. BEEMER, *President*.W. T. WOODS, *Secretary*.

Attorney to accept service in Minnesota, A. R. MCGILL, St. Paul.

## CASH CAPITAL, \$100,000.

## I. ASSETS.

Market value of bonds and stocks.....	\$247,031 25
Cash on hand and in bank.....	16,976 93
Premiums in course of collection.....	54,031 61
All other assets.....	2,576 67
Total admitted assets.....	\$320,616 64

## II. LIABILITIES.

Capital stock paid up.....	\$100,000 00
Reserved for reinsurance.....	144,045 84
Unpaid losses.....	3,076 87
Other liabilities.....	35,213 48
Total liabilities, including capital.....	\$282,336 23
Net surplus.....	\$38,280 23

## III. INCOME IN 1888.

From premiums received.....	\$271,785 07
From interests and dividends.....	6,711 83
Total income.....	\$278,496 90
Excess of income over expenditures.....	\$32,474 51

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$114,220 98
Dividends.....	10,000 00
Commissions and brokerage.....	64,181 00
Salaries of officers and employes.....	52,510 01
Taxes.....	5,110 40
Total expenditures.....	\$246,022 39

## V. MISCELLANEOUS.

Plate glass risks written in 1888.....	\$9,663,009 00
Premiums received thereon.....	301,189 05
Total risks in force Dec. 31, 1888.....	\$9,209,601 00
Total premiums received from commencement to date.....	\$1,221,720 00
Total losses paid from commencement to date.....	447,517 84
Excess of premiums over losses.....	\$774,202 16



## BUSINESS IN MINNESOTA IN 1888.

*Plate Glass.*

Risks written.....	\$223,668 00
Premiums received.....	7,198 16
Losses paid.....	\$2,034 68
Losses incurred.....	2,675 47

## METROPOLITAN PLATE GLASS INSURANCE COMPANY.

Principal Office.....New York City.

(Organized, 1874.)

HENRY HARTEAU, *President.*

EUGENE H. WINSLOW, *Secretary.*

Attorney to accept service in Minnesota, S. S. EATON, St. Paul.

CASH CAPITAL, \$100,000.

### I. ASSETS.

Market value of bonds and stocks.....	\$244,150 00
Cash on hand and in bank.....	26,508 13
Premiums in course of collection.....	16,581 37
Total admitted assets .....	<u>\$287,239 50</u>

### II. LIABILITIES.

Capital stock paid up .....	\$100,000 00
Reserved for reinsurance.....	84,397 97
Unpaid losses.....	3,200 10
Other liabilities .....	9,246 65
Total liabilities, including capital.....	<u>\$196,844 72</u>
Net surplus.....	<u>\$90,394 78</u>

### III. INCOME IN 1888.

From premiums received.....	\$164,139 28
From interests .....	7,938 28
Total income.....	<u>\$172,077 56</u>
Excess of income over expenditures.....	<u>\$21,714 13</u>

### IV. EXPENDITURES IN 1888.

Losses paid.....	\$65,229 22
Dividends.....	11,000 00
Commissions and brokerage.....	44,750 29
Salaries of officers and employees.....	27,868 01
Taxes.....	1,525 91
Total expenditures.....	<u>\$150,373 43</u>

## V. MISCELLANEOUS.

Plate glass risks written in 1888.....	\$5,983,708 00
Premiums received thereon.....	180,813 04
Total risks in force Dec. 31, 1888.....	<u>\$5,583,138 00</u>
Total premiums received from commencement to date.....	\$1,267,636 00
Total losses paid from commencement to date.....	446,145 00
Excess of premiums over losses.....	<u>\$821,491 00</u>

## BUSINESS IN MINNESOTA IN 1888.

*Plate Glass.*

Risks written.....	\$106,240 10
Premiums received .....	3,694 92
Losses paid.....	\$849 63
Losses incurred.....	849 63

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## STANDARD LIFE AND ACCIDENT INSURANCE COMPANY.

Principal Office.....Detroit, Mich.

(Organized in 1884.)

D. M. FERRY, *President.*

S. MARKS, *Secretary.*

Attorney to accept service in Minnesota, WM. POWELL, Minneapolis.

CASH CAPITAL, \$200,000.

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### I. ASSETS.

Loans secured by mortgages on real estate .....	\$244,395 72
Market value of bonds and stocks.....	50,000 00
Cash on hand and in bank.....	73,135 85
Premiums in course of collection.....	126,749 58
Total admitted assets.....	<u>\$494,281 15</u>

### II. LIABILITIES.

Capital stock paid up .....	\$200,000 00
Reserved for reinsurance.....	224,812 14
Unpaid losses.....	21,300 00
Other liabilities.....	34,856 18
Total liabilities, including capital.....	<u>\$480,968 27</u>
Net surplus.....	\$13,312 88

## III. INCOME IN 1888.

From premiums received.....	\$446,049 68
From interests and dividends.....	12,733 97
Total income.....	<u>\$458,783 65</u>
Excess of income over expenditures.....	\$53,018 57

## IV. EXPENDITURES IN 1888.

Losses paid.....	\$198,013 92
Commissions and brokerage.....	123,619 13
Salaries of officers and employees.....	39,284 59
Taxes.....	12,089 92
All other expenditures.....	<u>32,757 52</u>
Total expenditures.....	\$405,765 08

## V. MISCELLANEOUS.

Accident risks written in 1888.....	\$59,329,675 00
Premiums received thereon.....	598,974 49
Total risks in force Dec. 31, 1888.....	<u>\$48,172,625 00</u>
Total premiums received from commencement to date.....	\$874,488 14
Total losses paid from commencement to date.....	366,896 52
Excess of premiums over losses.....	<u>\$507,591 62</u>

## BUSINESS IN MINNESOTA IN 1888.

*Accident.*

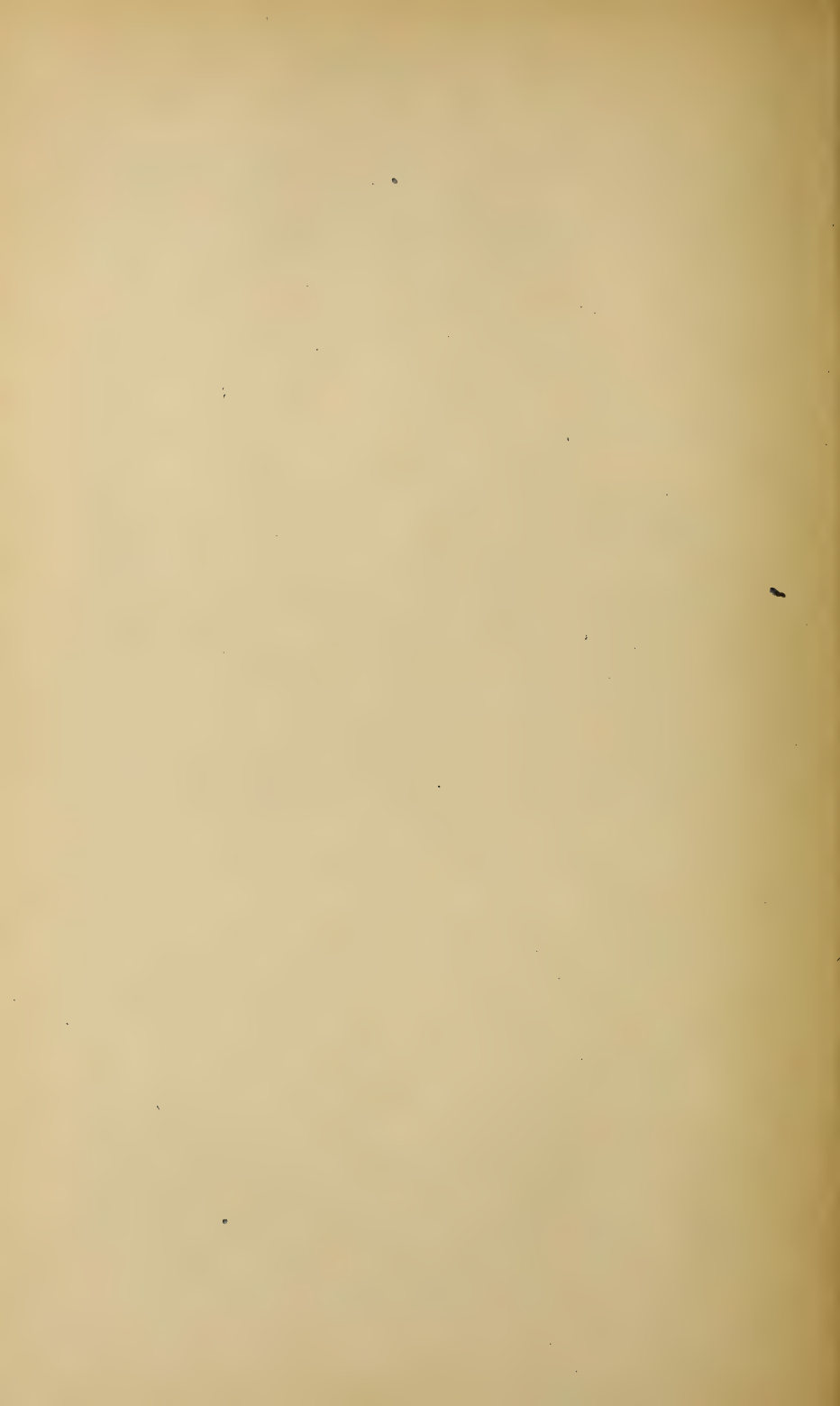
Risks written.....	\$2,846,600 00
Premiums received.....	36,511 21

*Losses Paid.*

Accident.....	\$8,620 27
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*Losses Incurred.*

Accident.....	\$8,620 27
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REAL ESTATE TITLE INSURANCE.

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## MINNESOTA TITLE INSURANCE AND TRUST COMPANY.

Principal Office.....Minneapolis, Minn.

(Organized in 1886.)

JOSEPH U. BARNES, *President.*J. W. MAUCK, *Secretary.*

CASH CAPITAL, \$325,000.

## I. ASSETS.

Value of real estate owned.....	\$13,851 99
Loans secured by mortgages on real estate.....	242,341 50
Cash on hand and in bank.....	7,826 27
Abstract plant.....	91,057 00
All other assets.....	3,398 58
Total admitted assets.....	<u>\$357,975 34</u>

## II. LIABILITIES.

Capital stock paid up.....	\$325,000 00
Other liabilities.....	11,075 26
Total liabilities, including capital.....	<u>\$336,075 26</u>
Net surplus.....	\$21,900 08

## III. INCOME IN 1888.

From premiums received.....	\$24,657 11
From interests and dividends.....	14,710 77
Call on capital.....	75,000 00
From rents and all other sources.....	5,411 85
Total income.....	<u>\$119,779 73</u>
Excess of income over expenditures.....	\$58,477 87

## IV. EXPENDITURES IN 1888.

Dividends.....	\$25,000 00
Commissions and brokerage.....	1,292 22
Salaries of officers and employes.....	25,371 26
All other expenditures.....	9,638 38
Total expenditures.....	<u>\$61,301 86</u>

## V. MISCELLANEOUS.

Title risks written in 1888.....	\$3,716,128 00
Premiums received thereon.....	24,657 11
Total risks in force Dec. 31, 1888.....	<u>\$3,050,499 00</u>
Total premiums received from commencement to date.....	\$88,721 36
Total losses paid from commencement to date.....	None
Business confined to Minnesota.	

# ST. PAUL REAL ESTATE TITLE INSURANCE COMPANY.

Principal Office.....St. Paul, Minn.

(Organized in 1887.)

ARNOLD KALMAN, *President.*

C. M. TAYLOR, *Secretary.*

CASH CAPITAL, \$250,000.

## I. ASSETS.

Loans secured by mortgages on real estate .....	\$158,948 94
Market value of bonds and stocks.....	47,000 00
Cash on hand and in bank.....	5,167 10
Premiums in course of collection.....	2,455 24
All other assets.....	68,645 48
Total admitted assets.....	\$282,216 76

## II. LIABILITIES.

Capital stock paid up.....	\$250,000 00
Unpaid salaries (estimated).....	1,000 00
Total liabilities, including capital.....	\$251,000 00
Net surplus.....	\$31,216 76

## III. INCOME IN 1888.

From premiums received.....	\$29,664 40
From interests and dividends .....	17,217 42
From rents and all other sources.....	360 78
Total income.....	\$47,242 60
Excess of income over expenditures .....	\$22,608 80

## IV. EXPENDITURES IN 1888.

Commissions and brokerage.....	\$2,292 09
Salaries of officers and employes.....	10,366 22
Taxes.....	193 16
All other expenditures.....	11,782 33
Total expenditures.....	\$24,633 80

## V. MISCELLANEOUS.

Title risks written in 1888.....	\$4,928,935 00
Premiums received thereon.....	29,664 40
Total risks in force Dec. 31, 1888.....	\$6,257,420 00

NOTE.—Business confined to Minnesota.



## RECEIPTS AND DISBURSEMENTS.

*From March 1, 1888, to March 1, 1889.*

FROM	Tax.	Fees.	Totals.
Fire and marine insurance companies .....	\$72,793.36	\$9,266.00	\$82,059.36
Life insurance companies.....	22,233.45	998.00	23,231.45
Casualty insurance companies.....	2,485.32	230.00	2,715.32
Assessment insurance companies.....		949.00	949.00
Real estate title insurance companies.....	841.62	42.00	883.62
Totals.....	\$98,353.75	\$11,485.00	\$109,838.75

## DISBURSEMENTS.

From contingent fund.....	\$332 36
For extra clerk hire.....	253 50
For salaries.....	3,500 00
Total expenditures.....	\$4,085 86



# INSURANCE COMMISSIONER'S REPORT.

## PART II.

### REGULAR LIFE AND ASSESSMENT INSURANCE.

The companies authorized to do a life insurance business in this state April 1, 1889, upon the "level premium" and "natural premium" plan, are as follows:

<i>Etna</i> .....	Hartford, Conn.
Connecticut Mutual.....	Hartford, Conn.
Equitable.....	Des Moines, Ia.
Equitable.....	New York City.
Germania.....	New York City.
Hartford Life and Annuity.....	Hartford, Conn.
Home .....	Brooklyn, N. Y.
Imperial.....	Detroit, Mich.
Manhattah.....	New York City.
Massachusetts Mutual.....	Springfield, Mass.
Metropolitan .....	New York City.
Michigan Mutual.....	Detroit, Mich.
Mutual.....	New York City.
Mutual Benefit.....	Newark, N. J.
National .....	Montpelier, Vt.
New England Mutual.....	Boston, Mass.
New York Life.....	New York City.
Northwestern Mutual.....	Milwaukee, Wis.
Pacific Mutual.....	San Francisco, Cal.
Penn Mutual.....	Philadelphia, Pa.
Phoenix Mutual.....	Hartford, Conn.
Provident Life and Trust.....	Philadelphia, Pa.
Provident Savings.....	New York City.
Prudential .....	Newark, N. J.
State Mutual.....	Worcester, Mass.
Travelers .....	Hartford, Conn.
Union Central.....	Cincinnati, Ohio.
Union Mutual.....	Portland, Me.
United States.....	New York City.
Washington .....	New York City.

One new company, the Provident Life and Trust Company, Philadelphia, was admitted during the year, while the Life Indemnity and Investment Company of Waterloo, Ia., failed to report. This leaves the same number of regular life companies operating in the state as during the previous year.

The following table affords a comparison of the business transacted in this state by the regular life companies during the years 1887 and 1888 respectively:

	1887.		1888.	
	Policies.	Amount.	Policies.	Amount.
In force at the beginning of the year..	13,453	\$30,060,970.00	15,669	\$38,669,715.00
Issued during the year .....	3,952	12,935,447.00	9,097	16,512,359.00
Ceased to be in force during the year .....	1,857	4,841,194.00	5,698	9,487,175.00
In force at close of the year.....	15,548	38,155,223.00	19,068	45,721,715.00
Premiums collected during the year.....		1,002,173.42		1,323,689.24
Losses incurred during the year.....		321,067.24		478,708.03

#### SHOWING :

Net gain in number of policies.....	2,216
Net gain in insurance written .....	\$8,608,745 00
Increase in premiums .....	321,515 82
Increase in losses incurred.....	157,640 79

The total business transacted by the companies and their condition as compared with the previous year is shown by the following

TABLE.

	1877.	1888.
Total number of companies operating in the state.....	30	30
Aggregate admitted assets.....	\$581,872,586.52	\$642,066,339.03
Aggregate liabilities to policy holders.....	488,160,348.16	541,372,455.41
Aggregate surplus to policy holders.....	93,712,238.36	100,693,883.62
Ratio of assets to liabilities .....	119.19	118.60
Premium income.....	103,402,992.37	119,950,199.32
Income from all sources .....	132,349,286.26	152,597,150.00
Losses and matured endowments paid.....	42,904,066.92	49,346,874.40
Total expenditures.....	96,251,493.49	108,147,541.56
Excess of income over expenditures.....	36,145,548.58	44,477,727.71
Number of policies in force December 31st.....	*1,659,255	*1,894,381
Net increase during the year .....	74,410	235,126
Insurance in force December 31st.....	\$2,411,068,027.00	\$2,931,568,840.00
Net increase during the year .....	243,658,816.00	520,500,813.00
Policies terminated by death and maturity.....	15,014	*30,334
Losses by death and maturity .....	\$38,351,287.00	\$46,027,892.00

\* Including industrial policies.

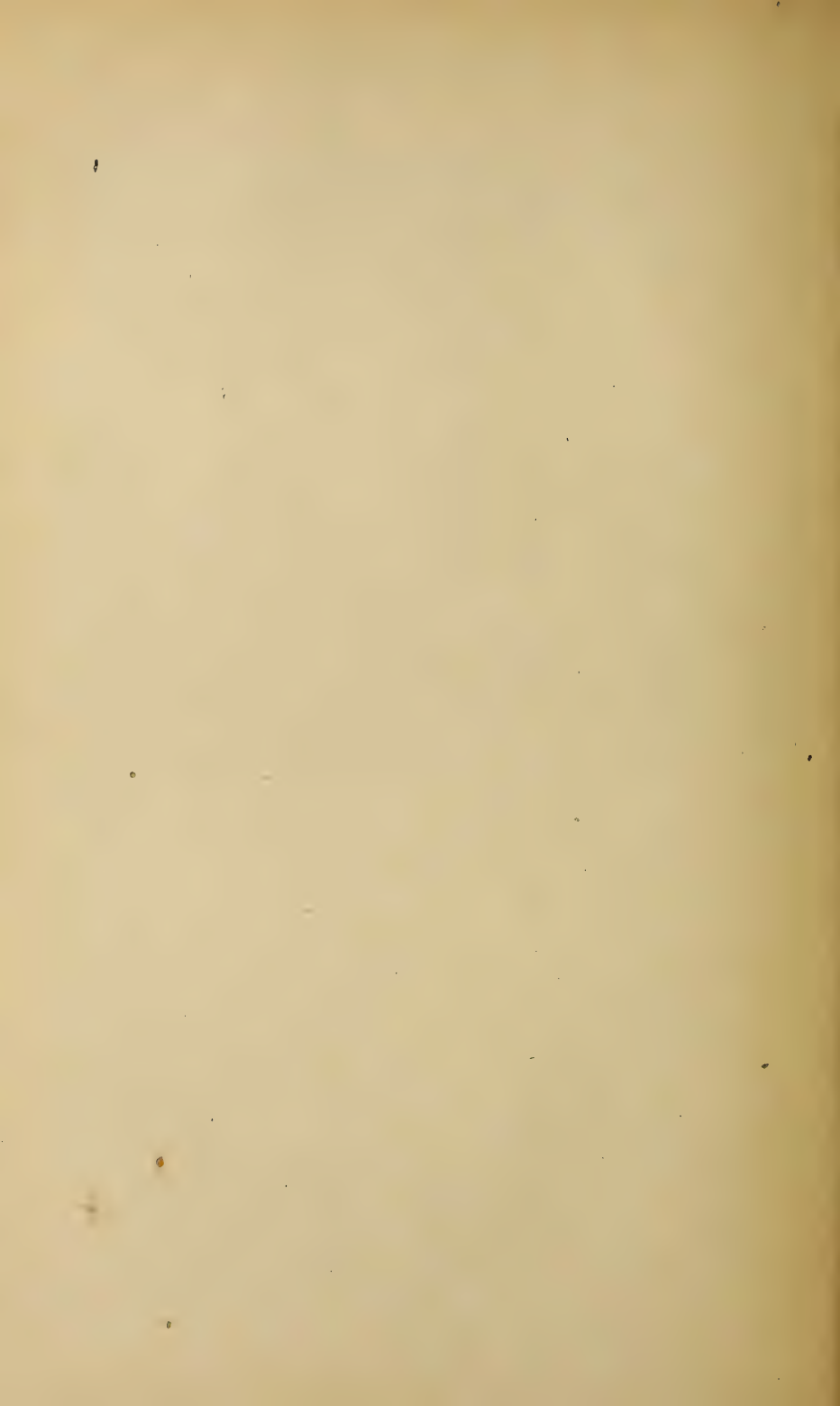
## SEVENTEEN YEARS OF LIFE INSURANCE IN MINNESOTA.

The following table shows the number of policies, amount insured, premiums received and losses paid each year during the last seventeen years, by all the life insurance companies in this state.

YEAR.	No. of Policies Issued.	Amount Insured.	Premiums Received.	Losses Paid.
1872.....	2,308	\$3,036,905.00	\$473,907.47	\$132,735.92
1873.....	2,142	2,936,072.00	432,865.11	198,842.60
1874.....	3,169	4,739,259.00	491,130.26	214,150.46
1875.....	3,189	4,561,582.00	510,267.52	214,102.52
1876.....	1,997	3,200,964.00	430,394.84	258,510.75
1877.....	1,289	1,967,273.00	369,799.40	203,865.01
1878.....	960	1,364,954.00	316,553.18	142,677.11
1879.....	1,204	2,342,512.00	328,187.61	162,717.05
1880.....	1,320	2,327,361.00	353,637.47	238,896.74
1881.....	1,634	3,308,917.00	376,000.38	167,196.01
1882.....	1,623	4,099,922.00	447,662.72	185,985.26
1883.....	2,004	4,647,153.00	521,690.80	242,219.81
1884.....	2,053	4,400,520.00	577,915.95	229,065.45
1885.....	2,232	6,189,363.00	677,340.22	311,594.07
1886.....	2,769	7,983,970.00	802,701.14	403,705.67
1887.....	3,952	12,935,447.00	1,002,173.42	310,006.36
1888.....	*9,097	38,669,715.00	1,323,689.24	470,694.87
Total.....	42,942	\$108,701,889.00	\$9,435,916.73	\$4,086,965.66

\*Including industrial policies.





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# STATISTICAL TABLES.

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TABLE I.

*Table Showing the Life Insurance Business Transacted in the State of Minnesota During the Year 1888, the Number and Amount of Policies Issued, the Number and Amount of Policies which Ceased to be in Force, the Premiums Received, Losses Paid and Losses Incurred.*

COMPANIES.	In Force at the End of 1887.		Issued During 1888.		Ceased to be in force during 1888.		In Force Dec. 31, 1888.		Premiums Received During 1888.			Losses Paid in 1888.	Losses Incurred in 1888.
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	Cash.	Notes, Credits, etc.	Total.		
Ætna.....	604	\$790,392	380	\$863,814	165	\$822,977	819	\$1,271,229	\$28,884.84	\$313.05	\$29,197.89	\$20,551.84	\$22,465.00
Connecticut Mutual.....	663	1,373,009	52	120,400	59	112,300	656	1,381,109	23,919.22	5,409.38	29,328.60	12,132.00	12,132.00
Equitable, Ia.....	31	45,000	16	32,646	5	9,000	42	68,646	1,458.43	.....	1,458.43	.....	.....
Equitable, N. Y.....	1,318	5,550,662	338	2,380,993	168	1,678,415	1,488	6,253,240	176,920.01	.....	176,920.01	62,400.00	63,260.00
Germania.....	366	822,788	347	1,173,144	163	358,364	550	1,637,568	61,274.06	.....	61,274.06	16,430.00	12,264.00
Hartford Life & Annuity	142	588,000	72	282,000	19	74,500	195	795,500	20,790.00	.....	20,790.00	2,000.00	2,000.00
Home.....	56	98,693	29	57,153	25	65,750	60	90,096	5,777.78	.....	5,777.78	3,400.00	4,400.00
Imperial.....	12	37,000	17	68,500	1	3,000	28	102,500	1,079.02	.....	1,079.02	.....	.....
Manhattan.....	310	772,620	210	540,960	157	429,372	363	884,208	21,943.98	.....	22,512.75	8,000.00	10,500.00
Massachusetts Mutual.....	214	607,066	151	570,020	100	377,847	265	739,239	20,911.43	.....	23,157.42	.....	980.00
Metropolitan.....	8	18,280	3	4,000	2	6,532	9	15,748	17,352.94	.....	17,352.94	9,223.75	9,223.75
Michigan Mutual.....	203	633,487	88	143,003	28	94,398	263	882,092	17,031.43	.....	17,031.43	.....	.....
Mutual.....	1,975	6,441,798	602	1,934,000	333	1,430,920	2,184	6,910,928	261,054.00	.....	261,054.00	122,390.00	122,390.00
Mutual Benefit.....	910	1,987,589	279	784,276	185	449,339	1,004	2,321,966	51,676.20	.....	51,676.20	31,359.00	37,359.00
National.....	70	142,325	24	75,400	1	3,000	93	214,725	5,002.03	.....	5,002.03	.....	.....
New England Mutual.....	537	1,592,021	54	160,340	28	114,449	563	1,584,728	24,046.45	.....	24,046.45	2,500.00	6,500.00
New York.....	1,170	3,519,289	389	3,612,348	221	1,430,967	1,338	5,700,670	211,562.92	.....	211,562.92	31,333.73	31,333.73
Northwestern Mutual.....	4,220	7,242,886	584	1,717,242	485	1,032,323	4,219	7,927,805	178,978.05	.....	183,028.12	81,210.30	88,410.30
Pacific Mutual.....	46	81,679	17	22,500	6	5,194	37	98,985	2,500.14	.....	2,500.14	.....	.....
Penn Mutual.....	257	782,800	100	297,000	40	162,000	317	917,800	23,745.59	.....	26,437.85	4,128.00	4,128.00
Phoenix Mutual.....	344	448,664	1	650	19	36,461	326	412,853	4,633.86	.....	4,633.86	15,609.00	14,609.00
Provident Life & Trust.....	6	152,500	66	152,500	37	7,000	69	158,994	1,308.59	.....	1,308.59	.....	.....
Provident Savings.....	303	1,153,000	67	249,000	4	197,000	323	1,205,000	16,471.61	.....	15,471.61	.....	.....
Prudential.....	.....	.....	4,806	426,048	3,058	252,946	1,748	173,502	3,824.65	.....	3,824.65	120.50	120.50
State Mutual.....	273	689,300	26	63,000	17	46,204	282	704,096	19,874.86	.....	19,874.86	12,500.00	12,500.00

Travelers.....	262	597,066	32	94,075	27	98,275	267	592,866	12,556.48	.....	12,556.48	2,325.00	1,325.00
Union Central.....	149	266,750	114	186,590	56	114,250	207	339,090	10,184.63	.....	10,184.63	1,000.00	2,000.00
Union Mutual.....	300	768,111	38	146,797	35	85,516	303	829,392	21,555.24	.....	21,555.24	1,045.75	2,045.75
United States.....	173	358,750	71	210,150	28	73,780	216	490,120	11,843.40	.....	11,843.40	.....	.....
Washington.....	747	1,282,196	124	183,760	157	308,936	714	1,157,020	9,156.54	.....	39,156.54	18,762.00	18,762.00
Totals.....	15,669	\$38,669,715	9,097	\$16,512,359	5,698	\$9,437,175	19,068	\$45,721,715	\$1,298,318.38	\$25,370.86	\$1,323,689.24	\$470,694.87	\$478,708.03

TABLE A.

*Showing the Names and Location of All Life Insurance Companies, Authorized to Do Business in Minnesota May 1, 1889, Together with the Names of the Presidents and Secretaries Thereof; Also the Names and Residences of the Attorneys to Accept Service of Process in Minnesota.*

COMPANIES.	LOCATION.	OFFICERS.		ATTORNEY TO ACCEPT SERVICE OF PROCESS.	
		President.	Secretary.	Names.	Residence.
<i>Ætna</i> .....	Hartford, Conn.....	M. G. Bulkely.....	John L. English.....	Ins. Commissioner.....	St. Paul.
Connecticut Mutual.....	Hartford, Conn.....	Jacob L. Greene.....	Wm. G. Abbott.....	Jno. P. Jacobson.....	St. Paul.
Equitable.....	Des Moines, Iowa.....	F. M. Hubbell.....	Cyrus Kirk.....	A. R. McGill.....	St. Paul.
Equitable.....	New York City.....	H. B. Hyde.....	Wm. Alexander.....	L. D. Wilkes.....	St. Paul.
Germania.....	New York City.....	H. Welsendonck.....	C. Doremus.....	F. de Haas.....	St. Paul.
Hartford Life and Annuity.....	Hartford, Conn.....	E. R. Foster.....	Stephen Ball.....	Egbert Cowles.....	Minneapolis.
Home.....	New York City.....	G. C. Ripley.....	G. H. Ripley.....	Ins. Commissioner.....	St. Paul.
Imperial.....	Detroit, Mich.....	C. A. Newcomb.....	A. Waring.....	Ins. Commissioner.....	Minneapolis.
Manhattan.....	New York City.....	James McLean.....	H. Y. Wemple.....	J. T. Thurman.....	Minneapolis.
Massachusetts Mutual.....	Springfield, Mass.....	M. V. B. Egerly.....	John A. Hall.....	Geo. B. Pratt.....	Minneapolis.
Metropolitan.....	New York City.....	Joseph F. Knapp.....	J. R. Hegeman.....	Geo. C. Thompson.....	Minneapolis.
Michigan Mutual.....	Detroit, Mich.....	J. S. Farrand.....	O. R. Looker.....	A. R. McGill.....	St. Paul.
Mutual.....	New York City.....	R. A. McCurdy.....	W. J. Easton.....	A. H. Gale.....	Minneapolis.
Mutual Benefit.....	Newark, N. J.....	Amzi Dodd.....	E. L. Dobbin.....	Henry L. Shepard.....	Minneapolis.
National.....	Montpelier, Vt.....	Charles Dewey.....	Geo. W. Reed.....	P. D. McMillan.....	Minneapolis.
New England Mutual.....	Boston, Mass.....	B. F. Stevens.....	S. F. Trull.....	F. L. Bancroft.....	St. Paul.
New York.....	New York City.....	Wm. H. Beers.....	J. W. Skinner.....	Ins. Commissioner.....	St. Paul.
Northwestern Mutual.....	Milwaukee, Wis.....	H. L. Palmer.....	J. V. Batterson.....	Lindsey Webb.....	Minneapolis.
Pacific Mutual.....	San Francisco, Cal.....	George A. Moore.....	Henry C. Brown.....	A. R. McGill.....	St. Paul.
Penn Mutual.....	Philadelphia, Pa.....	H. M. Needles.....		E. A. Holbrook.....	Minneapolis.



Phenix Mutual.....	Hartford, Conn.....	A. C. Goodman.....	J. M. Holcombe.....	Josiah Thomson.....	Minneapolis.
Provident Life and Trust.....	Philadelphia, Pa.....	Samuel R. Shipley.....	.....	J. W. Smith.....	Minneapolis.
Provident Savings.....	New York City.....	Sheppard Romans.....	Wm. E. Stevens.....	A. R. McGill.....	St. Paul.
Prudential.....	Newark, N. J.....	John F. Dryden.....	E. S. Johnson.....	W. F. Gray.....	Minneapolis.
State Mutual.....	Worcester, Mass.....	A. G. Bullock.....	H. M. Witter.....	Chas. Shandrew.....	St. Paul.
Travelers.....	Hartford, Conn.....	J. G. Batterson.....	Rodney Dennis.....	S. S. Eaton.....	St. Paul.
Union Central.....	Cincinnati, Ohio.....	John Davis.....	E. P. Marshall.....	C. J. Thompson.....	Minneapolis.
Union Mutual.....	Portland, Me.....	John E. DeWitt.....	A. L. Bates.....	Walter Mann.....	St. Paul.
United States.....	New York City.....	G. H. Burford.....	Wm. Haxton.....	L. P. Van Norman.....	Minneapolis.
Washington.....	New York City.....	W. A. Brewer, Jr.....	Cyrus Munn.....	J. A. Sabin.....	St. Paul.

TABLE

*Showing the Several Items Comprising the Total Admitted Assets  
Minnesota*

COMPANIES.	Loans on Real Estate Security.	Loans on Collateral Security.	Premium Notes or Loans.	Value of Real Estate Owned.
Ætna .....	\$15,723,590.77	\$540,768.31	\$1,747,978.09	\$582,504.70
Connecticut Mutual.....	31,630,448.60	391,183.00	1,953,501.18	9,045,869.86
Equitable, Iowa.....	464,609.11	8,000.00	45,696.12	17,906.02
Equitable, N. Y.....	25,660,786.64	825,000.00	.....	22,695,389.21
Germania.....	7,068,426.80	250,000.00	187,638.08	1,298,690.71
Hartford Life and Annuity.....	316,580.00	3,400.00	99,433.50	209,210.08
Home.....	1,158,150.00	770,100.00	609,912.32	175,270.36
Imperial.....	100,572.50	.....	.....	.....
Manhattan.....	3,622,072.13	4,100,562.50	906,883.26	322,353.83
Massachusetts Mutual.....	2,754,265.81	863,370.00	524,271.04	475,215.08
Metropolitan.....	3,554,900.00	.....	132,939.37	362,708.66
Michigan Mutual.....	1,687,841.80	10,000.00	164,065.80	142,936.78
Mutual.....	49,617,874.02	10,033,000.00	.....	11,753,125.34
Mutual Benefit.....	20,553,760.35	3,603,245.68	4,984,840.65	1,285,426.05
National.....	2,253,991.76	48,000.00	240,668.95	186,470.67
New England Mutual.....	2,931,660.00	1,015,812.97	701,248.68	1,757,428.64
New York.....	16,966,932.50	1,676,250.00	378,874.10	9,308,152.08
Northwestern Mutual.....	27,352,727.03	.....	789,801.70	1,243,468.41
Pacific Mutual.....	1,431,365.58	1,711.94	77,744.32	114,565.40
Penn Mutual.....	4,044,729.74	874,100.00	955,635.69	690,494.07
Phoenix Mutual.....	6,456,077.39	.....	968,659.36	1,315,465.18
Provident Life and Trust.....	7,117,879.16	.....	310,278.59	1,040,725.92
Provident Savings.....	127,400.00	45,000.00	3,500.00	.....
Prudential.....	2,382,732.00	.....	.....	46,000.00
State Mutual.....	813,484.00	138,300.00	340,395.11	86,000.00
Travelers.....	3,425,476.50	239,415.00	164,255.00	1,551,479.84
Union Central.....	3,033,059.05	.....	751,987.85	193,215.84
Union Mutual.....	1,156,678.80	281,661.01	496,249.84	1,288,976.92
United States.....	3,120,150.00	85,711.89	154,036.02	63,830.53
Washington.....	7,351,555.27	.....	226,225.61	398,063.72
Totals.....	\$253,879,777.31	\$25,754,592.30	\$17,916,170.23	\$67,650,498.90

B.

*at the Close of 1888, of Life Insurance Companies Operating in  
May 1, 1889.*

Market Value of Bonds and Stocks Owned.	Cash on Hand and in Bank.	Accrued Interest and Rents.	Net Deferred and Out- standing Premiums.	All Other Assets.	Total Admit'd Assets.	Items not Admitted.
\$9,986,406.91	\$3,737,601.66	\$531,606.94	\$213,161.22	\$679,391.22	\$33,743,009.82	\$5,347.15
10,249,916.34	2,568,772.64	1,013,757.09	105,431.44	488,560.80	57,447,440.95	13,208.25
93,247.97	2,621.02	14,763.87	12,120.54	5,650.85	664,655.50	11,799.43
28,214,692.47	10,715,599.31	868,004.51	1,660,138.40	2,672,718.53	93,312,329.07	1,730,593.89
4,115,751.81	186,053.24	126,897.72	337,810.89	390,430.58	13,961,199.83	.....
136,289.50	42,096.21	8,177.14	437.94	907,576.50	1,723,200.87	.....
3,186,417.97	110,311.52	32,507.86	132,826.61	180,302.26	6,355,798.90	7,773.27
1,081.00	38,527.33	3,030.48	17,851.06	1,400.33	162,461.73	2,404.82
1,815,362.98	194,409.38	116,041.74	238,021.96	227,836.02	11,543,048.80	.....
4,010,562.25	200,489.31	171,034.36	293,994.65	272,320.15	9,565,522.65	.....
2,075,880.55	45,730.54	63,023.71	40,843.88	11,754.64	6,287,781.35	.....
1,893.75	69,848.97	65,136.51	123,481.63	.....	2,265,205.24	26,016.38
42,207,856.14	2,813,277.60	922,440.58	1,738,297.05	6,408,848.00	125,494,718.78	152,860.57
10,712,701.33	699,877.76	596,551.68	361,495.31	716,561.73	43,514,460.54	894.75
1,866,119.53	258,591.55	86,241.13	106,692.56	120,746.98	5,167,523.13	26,589.16
10,853,725.80	692,562.91	208,022.05	139,024.50	1,162,957.45	19,462,443.00	262,095.45
54,566,901.58	3,695,836.94	451,605.24	1,984,659.46	3,655,850.36	92,685,062.26	298,959.43
1,051,025.00	1,066,152.42	449,582.57	633,003.10	65,100.14	32,650,860.37	21,950.99
22,100.00	97,107.91	63,426.64	144,826.48	1,600.00	1,954,448.27	14,247.78
5,871,695.16	467,539.96	89,049.46	330,277.95	416,176.84	13,789,698.87	47,729.42
948,955.20	628,372.16	158,919.55	41,268.46	55,880.00	10,573,597.30	.....
5,682,835.00	20,905.64	141,295.53	441,474.39	285,485.00	15,040,879.23	.....
261,362.50	79,999.73	3,782.74	48,120.36	.....	569,165.33	21,961.57
267,117.50	87,217.89	21,268.41	61,879.26	7,947.50	2,874,162.56	47,257.67
3,094,723.84	109,986.13	53,000.00	.....	431,096.16	5,066,985.24	.....
3,925,502.43	770,919.27	72,360.46	233,373.42	.....	10,382,781.92	.....
12,825.00	175,128.77	74,746.88	255,957.29	24,127.16	4,520,997.84	56,415.74
2,385,565.06	183,003.40	67,344.59	108,533.98	84,180.16	6,002,193.76	3,373.15
2,114,854.02	54,828.05	66,506.68	166,739.34	157,163.41	5,933,369.94	42,879.88
659,703.42	234,473.29	90,852.36	256,040.78	184,421.58	9,401,336.03	53,981.07
\$210,393,111.01	\$30,047,842.51	\$6,630,478.48	\$10,227,783.91	\$19,566,084.38	\$642,066,339.03	\$2,848,369.82

TABLE C.

*Showing the Total Liabilities and the Several Items Comprising the Same at the Close of 1888, of the Several Life Insurance Companies Operating in Minnesota May 1, 1889.*

COMPANIES.	Net Reinsur- ance Reserve.	Total Gross Policy Claims.	All Other Liabilities.	Total Liabilities.	Total Assets.	Surplus Over Liabilities.	Standard of Computation of Reserve.
<i>Etna</i> .....	\$26,068,328.00	\$252,029.00	\$156,986.83	\$26,477,943.83	\$38,743,009.82	\$7,265,655.99	American Experience Table, 4½%.
Connecticut Mutual.....	50,980,765.00	365,952.25	544,064.33	51,891,781.58	57,447,440.95	5,555,659.37	Combined Experience Table, 4½%.
Equitable, Ia.....	73,605,154.00	643,053.81	.....	445,648.00	664,655.50	219,007.50	American Experience Table, 4½%.
Germania.....	11,865,505.31	93,979.43	101,263.44	74,248,267.81	93,312,329.07	19,064,121.26	Combined Experience Table, 4½%.
Hartford Life and Annuity	394,882.00	260,700.00	683,156.79	12,060,748.18	13,961,199.83	1,900,451.65	American Experience Table, 4½%.
Hone.....	4,653,395.00	24,182.00	25,246.22	1,338,738.79	1,723,200.87	384,462.08	American Experience Table, 4½%.
Imperial.....	23,963.89	8,500.00	.....	4,702,823.22	6,355,798.90	1,652,975.68	American Experience Table, 4½%.
Manhattan.....	9,411,474.00	169,029.30	83,532.64	32,463.89	162,461.73	129,997.84	American Experience Table, 4½%.
Massachusetts Mutual.....	8,749,359.00	34,539.00	29,449.04	9,664,035.94	11,543,048.80	1,879,012.86	American Experience Table, 4½%.
Metropolitan.....	4,835,100.00	19,354.75	506,303.74	8,813,347.04	9,565,522.65	752,175.61	American Experience Table, 4½%.
Michigan Mutual.....	1,920,834.00	22,000.00	447.27	5,360,758.49	6,287,781.35	927,022.86	Combined Experience Table, 4½%.
Mutual Benefit.....	109,940,006.00	404,582.58	175,124.35	1,943,281.27	2,265,205.24	321,923.97	American Experience Table, 4½%.
National.....	37,339,092.00	228,613.07	217,260.25	110,519,712.63	125,494,718.73	14,976,005.80	American Experience Table, 4½%.
New England Mutual.....	3,783,467.00	9,000.00	296,009.76	37,784,963.33	48,514,460.54	5,729,495.21	American Experience Table, 4½%.
New York.....	16,047,856.83	113,537.00	120,294.15	4,088,476.76	5,167,523.13	1,079,046.37	American Experience Table, 4½%.
Northwestern Mutual.....	78,147,561.00	941,897.96	46,904.21	15,281,037.98	19,462,443.00	3,180,755.02	American Experience Table, 4½%.
Pacific Mutual.....	25,586,366.00	210,649.62	186,183.00	79,136,963.17	92,685,062.26	13,549,099.09	American Experience Table, 4½%.
Penn Mutual.....	1,683,564.00	3,187.00	.....	25,982,198.62	32,650,860.37	6,668,661.75	American Experience Table, 4½%.
Phoenix Mutual.....	10,845,854.00	69,560.00	360,943.80	1,692,751.00	1,954,448.27	261,697.27	American Experience Table, 4½%.
Provident Life and Trust.....	8,390,617.00	104,363.00	265,679.26	11,276,357.80	13,739,698.87	2,463,341.07	American Experience Table, 4½%.
Provident Savings.....	12,017,529.00	48,696.85	56,731.74	8,760,659.26	10,573,597.30	1,812,938.04	American Experience Table, 4½%.
Prudential.....	161,043.00	35,000.00	.....	12,122,947.59	15,040,879.23	2,917,931.64	American Experience Table, 4½%.
State Mutual.....	4,467,439.73	6,500.00	.....	1,851,602.00	2,874,162.56	1,023,122.83	American Experience Table, 4½%.
				4,273,939.73	5,066,985.24	793,045.51	Combined Experience Table, 4½%.

Travelers .....	7,590,692.51	155,829.00	10,000.00	7,755,521.51	10,382,781.92	2,625,260.41	American Experience Table, 4 1/2 %.
Union Central .....	3,674,164.00	33,925.00	170,489.08	3,878,578.48	4,520,997.84	642,419.36	American Experience Table, 4 1/2 %.
Union Mutual .....	5,325,106.00	67,940.96	8,188.40	5,401,185.36	6,002,193.76	601,008.40	American Experience Table, 4 1/2 %.
United States .....	4,929,570.00	21,450.00	9,125.14	4,960,145.14	5,983,369.94	973,224.80	American Experience Table, 4 1/2 %.
Washington .....	8,403,045.00	15,872.86	10,623.85	8,429,541.71	9,401,336.03	971,794.32	American Experience Table, 4 1/2 %.
Totals .....	\$532,989,583.27	\$4,370,914.44	\$4,062,557.70	\$541,372,455.41	\$542,066,339.03	\$100,693,883.62	.....



TABLE D.

*Showing the Total Income for the Year 1888, and the Several Sources from Whence Derived, of Life Insurance Companies Operating in Minnesota May 1, 1889.*

COMPANIES.	Total Premiums Less Amount Paid for Reinsurance.	From Interest and Dividends.	From Rents and All Other Sources.	Total Income.	Total Expenditures.	Excess of Income Over Expenditures.	Excess of Expendi- tures Over Income.
<i>Etna.....</i>	\$3,404,264.73	\$1,689,966.49	\$39,498.11	\$5,133,729.33	\$4,044,052.46	\$1,089,676.87	.....
Connecticut Mutual.....	4,436,285.32	2,590,106.72	397,083.92	7,423,475.96	6,699,144.64	724,331.32	.....
Equitable, Ia.....	81,153.99	45,891.24	527.64	127,572.87	80,114.06	47,458.81	.....
Equitable, N. Y.....	22,047,813.35	4,181,779.81	729,384.43	26,958,977.59	16,823,906.13	10,125,071.46	.....
Germania.....	1,965,804.76	537,702.36	50,954.21	2,554,461.33	1,835,803.96	721,157.37	.....
<i>Hartford Life and Annuity.....</i>	994,254.53	46,144.43	6,682.51	1,047,081.47	1,008,953.42	38,128.05	.....
Home.....	816,847.03	274,295.62	8,043.48	1,093,186.13	853,156.36	246,029.77	.....
Imperial.....	86,815.69	6,914.64	.....	93,730.33	79,276.60	14,453.73	.....
Manhattan.....	1,454,829.77	509,138.63	9,995.88	1,973,964.28	1,932,670.90	41,293.38	.....
Massachusetts Mutual.....	1,639,369.87	446,107.84	17,097.41	2,102,575.12	1,550,193.62	552,381.50	.....
<i>Metropolitan.....</i>	6,810,109.91	245,329.13	30,779.61	7,086,218.65	5,600,444.65	1,485,774.00	.....
Michigan Mutual.....	619,576.40	113,476.65	.....	733,053.05	450,753.13	282,299.92	.....
Mutual.....	19,444,307.75	5,676,938.65	1,094,686.12	26,215,932.62	19,699,657.53	6,516,274.99	.....
Mutual Benefit.....	5,083,388.88	2,260,422.84	27,420.46	7,371,252.18	5,883,506.95	1,487,745.23	.....
National.....	1,231,173.37	292,606.39	7,757.62	1,541,537.38	942,050.75	599,486.63	.....
<i>New England Mutual.....</i>	2,472,809.95	882,435.18	131,670.66	3,486,915.79	2,821,108.75	665,807.04	.....
New York.....	20,560,609.53	4,144,059.41	166,505.02	24,871,173.96	15,389,610.47	9,481,563.49	.....
Northwestern Mutual.....	6,223,424.10	1,691,628.44	79,680.91	8,000,633.45	4,279,089.79	3,721,543.66	.....
Pacific Mutual.....	6,581,828.02	1,115,917.13	1,708.80	699,453.95	489,732.16	209,701.79	.....
Penn Mutual.....	2,636,291.09	664,136.87	53,327.47	3,353,755.43	2,229,388.22	1,124,367.21	.....
<i>Phoenix Mutual.....</i>	678,247.54	576,612.09	45,460.47	1,300,320.10	1,192,632.50	107,687.60	.....
Provident Life and Trust.....	2,548,468.18	598,544.14	57,619.03	3,204,631.35	1,685,348.40	1,519,282.95	.....
Provident Savings.....	1,145,152.65	18,472.56	.....	1,163,625.21	1,011,921.14	151,704.07	.....
Prudential.....	3,659,495.22	95,576.25	2,012.67	3,757,084.15	2,915,428.62	841,655.53	.....
State Mutual.....	1,033,523.31	223,252.21	308.70	1,257,684.22	836,097.60	421,586.62	.....

Travelers.....	3,401,466.35	528,155.78	57,777.86	3,987,399.99	3,159,820.35	827,579.64	.....
Union Central.....	1,473,931.19	233,137.68	10,932.89	1,718,001.76	1,008,188.89	710,012.87	.....
Union Mutual.....	711,888.19	224,311.10	27,320.48	963,519.77	991,639.04	.....	\$28,119.27
United States.....	819,541.72	265,033.22	2,622.95	1,087,197.89	903,387.67	183,310.22	.....
Washington.....	1,831,526.33	429,761.02	21,716.84	2,283,004.79	1,746,412.80	536,591.99	.....
Totals.....	\$119,950,199.32	\$29,567,874.53	\$3,079,076.15	\$152,597,150.00	\$108,147,541.55	\$44,477,727.71	\$28,119.27

TABLE E.

*Showing the Total Expenditures of the Year 1888, of the Life Insurance Companies Operating in Minnesota May 1, 1889.*

COMPANIES.	Losses and Matured Endowments.	Dividends and Other Disbursements to Policyholders.	Total Payments to Policyholders.	Dividends to Stockholders.	Management Expenses.	Total Disbursements.
<i>Aetna.....</i>	\$2,287,998.30	\$893,120.99	\$83,191,119.29	\$125,000.00	\$737,933.17	\$4,044,052.46
Connecticut Mutual.....	3,695,752.04	1,689,596.29	6,385,348.33	.....	1,313,796.31	6,699,144.64
Equitable, Ia.....	28,264.32	19,542.14	47,806.46	.....	32,337.60	80,144.06
Equitable, N. Y.....	7,562,489.34	4,321,968.10	11,884,457.44	7,000.00	4,938,448.69	16,829,906.13
Germania.....	958,244.60	394,665.46	1,352,910.06	24,000.00	456,393.90	1,833,303.96
<i>Hartford Life and Annuity.....</i>	667,459.00	101,043.18	768,502.18	20,000.00	220,451.24	1,008,953.42
Home.....	405,044.00	208,115.51	613,159.51	15,000.00	224,995.85	853,156.36
Imperial.....	26,000.00	12,070.20	38,070.20	.....	41,206.40	79,276.60
Manhattan.....	977,565.00	428,881.41	1,406,446.41	32,000.00	494,224.49	1,932,670.90
Massachusetts Mutual.....	655,477.00	406,311.58	1,061,788.58	.....	488,403.04	1,550,193.62
<i>Metropolitan.....</i>	2,552,364.28	70,694.49	2,623,058.77	35,000.00	2,942,385.88	5,600,444.65
Michigan Mutual.....	168,572.36	79,946.80	248,519.16	17,500.00	184,783.97	450,753.13
Mutual.....	9,426,756.37	5,390,793.85	14,737,550.22	.....	4,972,107.31	19,699,657.53
Mutual Benefit.....	3,016,816.09	1,996,984.15	4,053,800.24	.....	929,706.71	5,883,506.95
National.....	323,919.03	295,577.63	619,496.66	.....	322,554.09	942,050.75
<i>New England Mutual.....</i>	1,403,857.00	899,970.58	2,303,827.58	.....	517,281.17	2,821,108.75
New York.....	5,425,928.78	5,547,143.27	10,973,070.05	.....	4,416,540.42	15,389,610.47
Northwestern Mutual.....	1,581,840.84	1,217,866.09	2,799,696.93	.....	1,479,392.86	4,279,089.79
Pacific Mutual.....	220,167.71	85,317.57	305,485.28	10,000.00	174,266.88	489,752.16
Penn Mutual.....	898,561.00	721,534.94	1,620,095.94	.....	609,292.28	2,229,388.22
<i>Phoenix Mutual.....</i>	739,185.42	218,708.69	957,894.11	24,000.00	210,738.39	1,192,632.50
Provident Life and Trust.....	802,855.00	411,148.74	1,214,003.74	.....	471,344.66	1,685,348.40
Provident Savings.....	401,232.51	381,409.40	782,641.91	.....	229,279.23	1,011,921.14
Prudential.....	1,096,234.15	649.77	1,096,883.92	20,330.00	1,797,614.70	2,913,428.62
State Mutual.....	384,074.52	235,383.08	619,457.60	.....	216,640.00	836,097.60

Travelers.....	1,561,240.66	78,807.53	1,640,048.19	96,000.00	1,423,772.16	3,159,820.35
Union Central.....	208,090.41	249,849.63	457,940.04	10,000.00	540,248.85	1,008,188.89
Union Mutual.....	591,601.48	98,550.08	690,151.56	.....	301,487.48	991,639.04
United States.....	486,71.46	41,242.52	527,413.98	30,800.00	345,673.69	903,887.67
Washington.....	793,113.73	426,470.62	1,219,584.35	8,571.50	518,256.95	1,746,412.80
Totals.....	\$49,346,874.40	\$26,773,354.29	\$76,120,223.69	\$475,801.50	\$31,551,511.37	\$108,147,541.56

TABLE F.

*Showing the Number and Amount of Policies in Force at the Close of 1887 and 1888, with the Net Increase and Net Decrease, of the Life Insurance Companies Operating in Minnesota May 1, 1889.*

COMPANIES.	POLICIES IN FORCE AT THE CLOSE OF 1887.		POLICIES IN FORCE AT THE CLOSE OF 1888.		NET INCREASE.		NET DECREASE.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
Ætna.....	65,485	\$97,372,334	67,749	\$102,904,303	2,264	\$5,531,969	.....	.....
Connecticut Mutual.....	63,483	150,992,498	63,680	151,351,913	177	359,415	.....	.....
Equitable, Iowa.....	1,738	2,292,592	1,877	2,530,416	139	317,824	.....	.....
Equitable, New York.....	129,454	483,029,562	168,675	636,363,097	39,221	153,333,535	.....	.....
Germania.....	25,922	43,617,142	37,762	43,321,750	11,840	6,304,608	.....	.....
Harford Life and Annuity.....	945	1,191,099	764	970,910	.....	.....	181	\$220,189
Home.....	11,073	21,756,596	11,513	22,748,299	440	991,703	.....	.....
Imperial.....	1,328	3,418,000	1,859	6,050,600	531	2,632,600	.....	.....
Manhattan.....	14,027	39,018,611	16,567	43,504,413	1,540	4,485,802	.....	.....
Massachusetts Mutual.....	17,688	45,351,769	18,767	49,480,584	1,079	4,128,815	.....	.....
Metropolitan.....	3,524	4,272,790	3,379	4,067,777	.....	.....	.....	.....
Michigan Mutual.....	9,821	17,930,545	10,442	18,930,439	621	999,894	.....	.....
Mutual.....	140,830	427,583,359	158,190	482,050,579	17,360	54,467,220	.....	.....
Mutual Benefit.....	55,362	147,189,403	57,954	153,498,623	2,592	6,309,220	.....	.....
National.....	14,348	24,922,324	16,850	32,312,303	2,502	7,389,979	.....	.....
New England Mutual.....	23,817	69,754,124	25,305	73,591,241	1,488	3,837,117	.....	.....
New York.....	113,323	358,935,536	129,911	419,886,505	16,588	60,950,969	.....	.....
Northwestern Mutual.....	64,406	147,615,323	73,130	172,518,891	8,724	24,903,568	.....	.....
Pacific Mutual.....	3,313	8,439,704	3,657	3,672,888	344	1,243,094	.....	.....
Pennsylvania Mutual.....	24,909	61,018,805	27,714	68,372,882	2,805	7,354,077	.....	.....
Phoenix Mutual.....	17,677	25,267,687	17,463	24,872,295	.....	.....	209	395,392
Provident Life and Trust.....	18,337	57,137,653	20,736	64,003,694	2,399	6,866,041	.....	.....
Provident Savings.....	11,564	46,871,686	12,853	51,012,286	1,289	4,140,600	.....	.....
Prudential.....	77,744	82,639,088	850,979	93,661,783	113,335	11,022,695	.....	.....
State Mutual.....	8,737	23,337,840	9,326	26,665,185	1,029	3,277,345	.....	.....



Travelers.....	19,840	37,739,893	21,117	41,138,361	1,277	3,398,468	.....
Union Central.....	16,626	27,794,533	20,110	33,870,922	3,484	6,146,889	.....
Union Mutual.....	14,478	25,794,195	14,728	26,395,600	250	601,405	.....
United States.....	11,735	23,471,829	12,566	25,752,267	831	2,280,438	.....
Washington.....	17,761	39,506,527	19,273	42,768,034	1,512	3,261,507	.....
Totals.....	1,659,255	\$2,545,143,167	1,894,331	\$2,931,565,840	235,661	\$387,146,297	\$820,594

TABLE G.

*Showing the Number and Amount of Policies Issued and Terminated During the Year 1888, and the Mode of Termination of the Life Insurance Companies Operating in Minnesota May 1, 1889.*

COMPANIES.	TOTAL NUMBER AND AMOUNT OF POLICIES ISSUED AND TERMINATED DURING THE YEAR.				MODE OF TERMINATION.			
	ISSUED.		TERMINATED.		BY DEATH.		BY MATURITY.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
Aetna .....	8,083	\$16,094,587	5,866	\$10,701,584	955	\$1,604,814	882	\$769,687
Connecticut Mutual.....	3,210	8,370,690	3,284	8,694,575	1,339	3,263,369	311	495,654
Equitable, Ia.....	301	643,646	162	87,327,718	19	91,343	16	6,922
Equitable, N. Y.....	38,166	147,539,499	20,270	87,746,971	1,576	6,708,392	420	1,233,926
Germania.....	4,540	9,280,430	2,269	4,242,795	399	697,615	150	212,324
Hartford Life and Annuity .....	2	7,225	183	227,414	13	17,750	3	2,133
Honolulu.....	2,097	4,856,013	1,639	3,951,296	168	339,480	33	65,564
Imperial.....	891	3,811,100	1,360	1,180,500	.....	.....	9	26,000
Manhattan.....	3,673	11,049,286	2,147	6,593,684	296	917,989	36	59,576
Massachusetts Mutual.....	3,631	12,007,550	2,558	7,926,831	213	510,231	103	147,049
Metropolitan.....	185	235,435	380	440,448	106	119,014	5	2,259
Michigan Mutual.....	2,090	3,832,093	1,606	3,142,659	68	112,752	.....	.....
Mutual.....	31,080	95,584,858	15,237	48,878,814	2,072	7,293,326	869	2,227,226
Mutual Benefit.....	7,355	11,760,513	4,796	12,602,021	920	2,843,994	63	125,476
National.....	4,994	11,906,200	2,516	4,586,409	149	291,209	17	32,710
New England Mutual.....	3,229	9,088,279	1,788	5,454,864	396	1,241,716	109	184,558
New York.....	33,226	120,684,037	16,746	64,668,762	1,290	4,792,697	562	1,073,369
Northwestern Mutual.....	15,212	40,258,811	6,756	18,673,792	654	1,420,152	.....	.....
Pacific Mutual.....	4,045	10,664,664	388	991,756	48	112,273	11	22,600
Pennsylvania Mutual.....	5,302	13,901,833	2,880	7,332,013	325	857,350	30	76,237
Phoenix Mutual.....	1,178	1,710,086	1,402	2,139,320	325	551,504	176	161,229
Provident Life and Trust.....	3,810	11,122,075	1,550	4,809,400	165	620,994	84	204,995
Provident Savings.....	3,266	11,940,200	1,998	7,861,600	100	394,725	.....	.....
Prudential.....	525,363	53,508,281	445,462	47,824,699	13,355	1,309,096	.....	.....
State Mutual.....	1,763	5,102,000	740	1,874,857	150	321,059	33	55,000

Travelers .....	3,146	7,562,715	1,900	4,258,690	208	438,748	49	57,421
Union Central.....	7,887	14,842,046	4,522	8,906,860	127	196,830	17	21,964
Union Mutual.....	2,411	4,886,597	2,214	4,422,201	204	435,915	140	143,545
United States.....	2,558	6,335,676	1,822	4,294,738	211	425,714	42	81,706
Washington .....	4,907	8,755,817	2,809	6,290,104	208	598,514	108	144,263
Totals .....	727,656	\$664,301,242	536,310	\$390,550,875	20,056	\$38,388,505	4,278	\$7,638,387

TABLE G — CONTINUED.

COMPANIES.	MODE OF TERMINATION.									
	BY EXPIRATION.		BY SURRENDER.		BY LAPSE.		BY CHANGE.		NOT TAKEN.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
Etna .....	233	\$436,400	862	\$1,495,118	1,514	\$3,573,507	27	\$90,114	1,393	\$2,731,944
Connecticut Mutual.....	.....	.....	606	1,849,405	848	2,024,400	.....	559,247	1,180	507,500
Equitable, Ia.....	.....	.....	8	10,942	91	215,113	20	55,598	8	17,500
Equitable, N. Y.....	94	702,250	2,619	12,039,566	10,438	36,944,493	.....	.....	5,123	30,118,250
Germania .....	21	8,663	346	698,265	725	1,062,779	71	309,763	557	1,253,386
Hartford Life and Annuity.....	12	22,000	152	177,031	1	1,500	2	7,000	.....	.....
Home .....	.....	.....	648	1,511,448	437	862,000	.....	59,554	403	1,113,250
Imperial.....	.....	.....	251	775,000	.....	.....	5	8,000	95	367,000
Manhattan .....	.....	.....	137	375,959	838	2,074,446	114	393,777	726	2,771,977
Massachusetts Mutual.....	111	260,700	578	1,331,423	737	2,266,600	.....	550,328	816	2,860,000
Metropolitan.....	4	3,803	111	164,324	94	129,548	2	3,000	8	18,500
Michigan Mutual.....	8	6,415	300	375,558	993	2,138,932	94	19,515	143	311,000
Mutual .....	11	41,750	2,337	9,632,833	5,647	14,896,223	64	745,483	4,187	14,041,973
Mutual Benefit .....	593	1,569,343	4,239,926	1,590	994	2,219,999	.....	.....	636	1,603,283
National .....	1	1,500	1,889	1,036,750	654	1,216,500	113	490,940	693	1,516,800
New England Mutual.....	103	208,500	420	1,123,690	426	1,658,436	9	176,946	325	863,000
New York .....	292	50,000	1,926	11,345,771	7,027	22,913,433	.....	678,150	5,649	23,279,292
Northwestern Mutual.....	185	2,802,427	529	1,133,692	3,860	8,432,000	4	326,401	1,524	4,565,114
Pacific Mutual.....	7	23,000	58	1,170,703	199	8,485,200	.....	2,500	65	174,480
Pennsylvania Mutual.....	96	214,000	596	1,327,762	1,210	2,740,380	20	492,671	606	1,724,610
Phoenix Mutual .....	10	18,500	151	233,853	448	628,043	114	257,733	178	288,728
Provident Life and Trust.....	6	21,500	292	934,810	865	2,368,411	85	476,750	63	182,000
Provident Savings.....	1,606	6,398,625	16	21,750	36	13,500	.....	171,000	240	872,000
Prudential .....	.....	.....	.....	.....	432,055	46,448,119	11	20,584	41	46,960
State Mutual.....	31	76,500	215	534,249	162	323,500	.....	172,549	149	392,000
Travelers.....	3	12,000	173	269,716	948	2,094,250	203	602,763	316	783,792
Union Central.....	94	135,800	162	344,993	2,458	4,236,236	224	555,500	1,500	3,413,368

Union Mutual.....	243	497,500	45	172,092	889	1,634,180	2	3,500	691	1,482,400
United States.....	51	192,000	55	103,463	972	2,123,855	37	219,000	454	1,149,000
Washington .....	24	47,944	484	1,119,030	1,230	2,454,455	.....	.....	805	1,925,898
Totals .....	3,839	\$13,789,220	16,546	\$54,548,852	476,796	\$168,180,088	1,221	\$7,621,669	27,574	\$100,354,945



# ÆTNA LIFE INSURANCE COMPANY, OF HARTFORD, CONN.

(Organized in 1820.)

MORGAN G. BULKELEY, *President.*JOEL E. ENGLISH, *Secretary.*

Attorney in Minnesota, INSURANCE COMMISSIONER, St. Paul.

CAPITAL STOCK, \$1,250,000.

## ASSETS DEC. 31, 1888.

Loans on real estate.....	\$15,723,590 77
Loans on collateral security .....	540,763 31
Premium notes, or loans to policy holders.....	1,747,978 09
Value of real estate owned.....	582,504 70
Market value of bonds and stocks owned.....	9,986,406 91
Cash on hand and in bank.....	3,737,601 66
Accrued interests and rents .....	531,606 94
Net deferred and outstanding premiums.....	213,161 22
All other assets.....	679,391 22
Total admitted assets.....	\$33,743,009 82

## ITEMS NOT ADMITTED.

Bills receivable.....	\$2,901,23
Ledger balance.....	2,445 92
Total.....	\$5,347 15

## LIABILITIES.

Net present value of outstanding policies, American experience table of mortality with $4\frac{1}{2}$ per cent interest.....	\$26,068,828 00
Total gross policy claims .....	252,029 00
All other liabilities.....	156,986 83
Total liabilities.....	\$26,477,843 83
Surplus over liabilities.....	\$7,265,665 99

## INCOME IN 1888.

Total premium income.....	\$3,404,264 73
From interest and dividends.....	1,689,966 49
From rents and all other sources.....	39,498 11
Total income.....	\$5,133,729 33
Excess of income over expenditures.....	\$1,089,676 87

## EXPENDITURES IN 1888.

Losses and matured endowments.....	\$2,287,998 30
Dividends and other disbursements to policy holders.....	893,120 99
Total payments to policy holders.....	<u>\$3,181,119 29</u>
Dividends to stockholders.....	125,000 00
Management expenses.....	737,933 17
Total disbursements.....	<u>4,044,052 46</u>

## MISCELLANEOUS.

	No.	Amt.
Policies in force at close of 1887.....	65,485	\$97,372,334 00
Policies in force at close of 1888.....	67,749	<u>102,904,303 00</u>
Net increase..	2,264	\$5,531,969 00
Issued in 1888.....	8,083	16,094,587 00
Terminated in 1888.....	5,866	10,701,584 00
By death.....	955	1,604,814 00
By maturity.....	882	769,687 00
By expiration.....	233	436,400 00
By surrender.....	862	1,495,118 00
By lapse.....	1,514	3,573,507 00
By change.....	27	90,114 00
Not taken.....	1,393	<u>2,731,944 00</u>

## BUSINESS IN MINNESOTA IN 1888.

In force at end of 1887.....	604	\$790,392 00
Issued during 1888.....	380	803,814 00
Ceased to be in force during 1888.....	167	322,977 00
In force Dec. 31, 1888.....	817	<u>1,271,229 00</u>
Cash received for premiums.....		\$28,884 84
Notes, credits, etc.....		313 05
Total.....		<u>\$29,197 89</u>
Losses paid in 1888.....		\$20,551 84
Losses incurred in 1888.....		<u>23,230 00</u>

# CONNECTICUT MUTUAL LIFE INSURANCE COMPANY OF HARTFORD, CONN.

(Organized in 1846.)

JACOB L. GREENE, *President.*WILLIAM G. ABBOTT, *Secretary.*

Attorney in Minnesota, JOHN P. JACOBSON, St. Paul.

## ASSETS DEC. 31, 1888.

Loans on real estate.....	\$31,630,448 60
Loans on collateral security.....	391,183 00
Premium notes, or loans to policy holders.....	1,953,501 18
Value of real estate owned.....	9,045,869 86
Market value of bonds and stocks owned.....	10,249,916 34
Cash on hand and in bank.....	2,568,772 64
Accrued interests and rents .....	1,013,757 09
Net deferred and outstanding premiums.....	105,431 44
All other assets .....	488,560 80
Total admitted assets.....	<u>\$57,447,240 95</u>

## ITEMS NOT ADMITTED.

Agents ledger balance.....	\$13,208 25
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## LIABILITIES.

Net present value of outstanding policies, combined experience table of mortality with 4 per cent interest.....	\$50,980,765 00
Total gross policy claims.....	366,952 25
All other liabilities .....	544,064 33
Total liabilities.....	<u>\$51,891,781 28</u>
Surplus over liabilities.....	<u>\$5,555,659 37</u>

## INCOME IN 1888.

Total premium income.....	\$4,436,285 32
From interest and dividends.....	2,590,106 72
From rents and all other sources.....	397,083 92
Total income.....	<u>\$7,423,475 96</u>
Excess of income over expenditures.....	<u>724,331 32</u>

## EXPENDITURES IN 1888.

Losses and matured endowments.....	\$3,695,752 04
Dividends and other disbursements to policy holders.....	1,689,696 29
Total payments to policy holders.....	<u>\$5,385,348 33</u>
Management expenses.....	1,313,796 31
Total disbursements.....	<u>\$6,699,144 64</u>

## MISCELLANEOUS.

	No.	Amt.
Policies in force at close of 1887.....	63,483	\$150,992,498 00
Policies in force at close of 1888.....	63,660	151,861,913 00
Net increase.....	177	\$369,415 00
Issued in 1888.....	3,210	8,320,690 00
Terminated in 1888.....	3,284	8,699,575 00
By death.....	1,339	3,263,869 00
By maturity.....	311	495,654 00
By surrender.....	606	1,849,405 00
By lapse.....	848	2,024,400 00
By change.....		559,247 00
Not taken.....	180	507,500 00

## BUSINESS IN MINNESOTA IN 1888.

In force at end of 1887.....	662	\$1,373,009 00
Issued during 1888.....	52	120,400 00
Ceased to be in force during 1888.....	59	112,300 00
In force Dec. 31, 1888.....	655	1,381,109 00
Cash received for premiums.....		\$23,919 22
Notes, credits, etc.....		5,409 38
Total .....		\$29,328 60
Losses paid in 1888.....		12,132 00
Losses incurred in 1888.....		12,132 00

EQUITABLE LIFE INSURANCE CO., OF DES MOINES,  
IOWA.

(Organized in 1867.)

F. M. HUBBELL, *President.*CYRUS KIRK, *Secretary.*

Attorney in Minnesota, A. R. MCGILL, St. Paul.

CAPITAL STOCK, \$100,000.

## ASSETS DEC. 31, 1888.

Loans on real estate.....	\$464,609 11
Loans on collateral security.....	8,000 00
Premium notes, or loans to policy holders.....	45,696 12
Value of real estate owned.....	17,906 02
Market value of bonds and stocks owned.....	93,287 97
Cash on hand and in bank.....	2,621 02
Accrued interests and rents.....	14,763 87
Net deferred and outstanding premiums.....	12,120 54
All other assets .....	5,650 85
Total admitted assets.....	\$664,655 50

## ANNUAL REPORT

## ITEMS NOT ADMITTED.

Bills receivable.....	\$4,461 90
Ledger balance.....	6,962 53
Judgments.....	375 00
	<u>\$11,799 43</u>

## LIABILITIES.

Net present value of outstanding policies, American experience table of mortality with 4 per cent interest.....	<u>\$445,648 00</u>
Total liabilities.....	<u>\$445,648 00</u>
Surplus over liabilities.....	<u>\$219,007 50</u>

## INCOME IN 1888.

Total premium income.....	\$81,158 99
From interest and dividends.....	45,891 24
From rents and all other sources.....	527 64
	<u>Total income.....</u>
	<u>\$127,572 87</u>
Excess of income over expenditures.....	<u>\$47,428 81</u>

## EXPENDITURES IN 1888.

Losses and matured endowments.....	\$28,264 32
Dividends and other disbursements to policy holders.....	19,542 14
Total payment to policy holders.....	<u>\$47,806 46</u>
Management expenses.....	32,337 60
Total disbursements.....	<u>\$80,144 06</u>

## MISCELLANEOUS.

	No.	Amount.
Policies in force at close of 1887.....	1,738	\$2,202,592 00
Policies in force at close of 1888.....	1,877	2,520,416 00
Net increase.....	139	<u>\$317,824 00</u>
Issued in 1888.....	301	643,646 00
Terminated in 1888.....	162	327,718 00
By death.....	19	21,343 00
By maturity.....	16	6,922 00
By surrender.....	8	10,942 00
By lapse.....	91	215,113 00
By change.....	20	55,898 00
Not taken.....	8	<u>17,500 00</u>

## BUSINESS IN MINNESOTA IN 1888.

In force at end of 1887.....	31	\$45,000 00
Issued during 1888.....	16	32,646 00
Ceased to be in force during 1888.....	5	9,000 00
In force Dec. 31, 1888.....	42	68,646 00
Cash received for premiums.....		<u>1,458 43</u>



# EQUITABLE LIFE ASSURANCE SOCIETY OF THE UNITED STATES, OF NEW YORK.

(Organized in 1859.)

HENRY B. HYDE, *President.*WILLIAM ALEXANDER, *Secretary.*

Attorney in Minnesota, L. D. WILKES, St. Paul.

CAPITAL STOCK, \$100,000.

## ASSETS DEC. 31, 1888.

Loans on real estate.....	\$25,660,786 64
Loans on collateral security.....	825,000 00
Value of real estate owned.....	22,695,889 21
Market value of bonds and stocks owned.....	30,887,411 00
Cash on hand and in bank.....	10,715,599 31
Accrued interests and rents.....	868,004 51
Net deferred and outstanding premiums.....	1,660,138 40
Total admitted assets.....	\$93,312,329 07
Items not admitted.....	\$1,815,559 29

## LIABILITIES.

Net present value of outstanding policies, combined experience table of mortality with 4 per cent interest.....	\$73,605,154 00
Total gross policy claims.....	643,053 81
Total liabilities.....	\$74,248,207 81
Surplus over liabilities.....	\$19,064,121 26

## INCOME IN 1888.

Total premium income.....	\$22,047,813 35
From interest and dividends.....	4,181,779 81
From rents and all other sources.....	729,384 43
Total income.....	\$26,958,977 59
Excess of income over expenditures.....	\$10,129,071 46

## EXPENDITURES IN 1888.

Losses and matured endowments.....	\$7,562,489 34
Dividends and other disbursements to policy holders.....	4,321,968 10
Total payments to policy holders.....	\$11,884,457 44
Dividends to stockholders.....	7,000 00
Management expenses.....	4,938,448 69
Total disbursements.....	\$16,829,906 13

## MISCELLANEOUS.

	No.	Amt.
Policies in force at close of 1887.....	129,454	\$483,029,562 00
Policies in force at close of 1888.....	168,675	636,963,097 00
Net increase.....	39,221	\$153,933,535 00
Issued in 1888.....	38,166	147,539,499 00
Terminated in 1888.....	20,270	87,746,971 00
By death.....	1,576	6,708,392 00
By maturity.....	420	1,233,920 00
By expiration.....	94	702,350 00
By surrender.....	2,619	12,039,566 00
By lapse.....	10,438	36,944,493 00
Not taken.....	5,123	30,118,250 00

## BUSINESS IN MINNESOTA IN 1888.

In force at end of 1887.....	1,318	\$5,550,662 00
Issued during 1888.....	338	2,380,993 00
Ceased to be in force during 1888.....	168	1,678,415 00
In force Dec. 31, 1888.....	1,488	6,253,240 00
Cash received for premiums .....		176,920 01
Losses paid in 1888.....		62,400 00
Losses incurred in 1888.....		63,260 00

## GERMANIA LIFE INSURANCE COMPANY, OF NEW YORK CITY.

(Organized in 1860.)

HUGO WESENDONCK, *President.*

CORNELIUS DOREMUS, *Secretary.*

Attorney in Minnesota, FREDERICK DE HAAS, St. Paul.

CAPITAL STOCK, \$200,000.

## ASSETS DEC. 31, 1888.

Loans on real estate.....	\$7,068,426 80
Loans on collateral security.....	250,000 00
Premium notes, or loans to policy holders.....	187,633 08
Value of real estate owned.....	1,298,690 71
Market value of bonds and stocks owned.....	4,115,751 81
Cash on hand and in bank.....	186,053 24
Accrued interests and rents.....	126,397 72
Net deferred and outstanding premiums.....	337,810 89
All other assets.....	390,430 58
Total admitted assets.....	\$13,961,199 83

## LIABILITIES.

Net present value of outstanding policies, American experience table of mortality with 4½ per cent interest.....	\$11,865,505 31
Total gross policy claims.....	93,979 43
All other liabilities.....	101,263 44
Total liabilities.....	<u>\$12,060,748 18</u>
Surplus over liabilities.....	\$1,900,451 65

## INCOME IN 1888.

Total premium income.....	\$1,965,804 76
From interest and dividends.....	537,702 36
From rents and all other sources.....	50,954 21
Total income.....	<u>\$2,554,461 33</u>
Excess of income over expenditures.....	\$721,157 37

## EXPENDITURES IN 1888.

Losses and matured endowments.....	\$958,244 60
Dividends and other disbursements to policy holders.....	394,665 46
Total payments to policy holders.....	<u>\$1,352,910 06</u>
Dividends to stockholders.....	24,000 00
Management expenses.....	456,393 90
Total disbursements.....	<u>\$1,833,303 96</u>

## MISCELLANEOUS.

	No.	Amt.
Policies in force at close of 1887.....	25,922	\$43,617 142 00
Policies in force at close of 1888.....	37,762	49,921,750 00
Net increase.....	11,840	<u>\$6,304,608 00</u>
Issued in 1888.....	4,540	4,989,430 00
Terminated in 1888.....	2,269	4,242,795 00
By death.....	399	697,615 00
By maturity.....	150	212,324 00
By expiration.....	21	8,663 00
By surrender.....	346	698,265 00
By lapse.....	725	1,062,779 00
By change.....	71	309,763 00
Not taken.....	557	<u>1,253,386 00</u>

## BUSINESS IN MINNESOTA IN 1888.

In force at end of 1887.....	366	\$822,788 00
Issued during 1888.....	347	1,173,144 00
Ceased to be in force during 1888.....	163	358,364 00
In force Dec. 31, 1888.....	550	<u>1,637,568 00</u>
Cash received for premiums.....		61,274 06
Losses paid in 1888.....		16,430 00
Losses incurred in 1888.....		<u>12,264 00</u>

# HARTFORD LIFE AND ANNUITY INSURANCE COMPANY OF HARTFORD, CONN.

(Organized in 1867.)

FREDERICK R. FOSTER, *President.*STEPHEN BALL, *Secretary.*

Attorney in Minnesota, EGBERT COWLES, Minneapolis.

## CAPITAL STOCK, \$250,000.

### ASSETS DEC. 31, 1888.

Loans on real estate.....	\$316,580 00
Loans on collateral security.....	3,400 00
Premium notes, or loans to policy holders.....	99,433 50
Value of real estate owned.....	209,210 08
Market value of bonds and stocks owned.....	136,289 50
Cash on hand and in bank.....	42,096 21
Accrued interests and rents.....	8,177 14
Net deferred and outstanding premiums.....	437 94
Reserve fund deposited with security company.....	653,879 13
All other assets—mortality claims against members.....	253,697 37
Total admitted assets, less \$16,454.50, depreciation.....	\$1,723,200 87

### LIABILITIES.

Net present valuation of outstanding policies, American experience table of mortality with $4\frac{1}{2}$ per cent interest.....	\$394,882 00
Total gross policy claims.....	260,700 00
Amount of reserve fund liability.....	653,879 13
All other liabilities.....	29,277 66
Total liabilities.....	\$1,338,738 79
Surplus over liabilities.....	384,462 08

### INCOME IN 1888.

Total premium income.....	\$994,254 53
From interest and dividends.....	46,144 43
From rents and all other sources.....	6,682 51
Total income.....	\$1,047,081 47
Excess of income over expenditures.....	\$38,128 05

### EXPENDITURES IN 1888.

Losses and matured endowments.....	\$667,459 00
Dividends and other disbursements to policy holders.....	101,043 18
Total payments to policy holders.....	\$768,502 18
Dividends to stockholders.....	20,000 00
Management expenses.....	220,451 24
Total disbursements.....	\$1,008,953 42

## MISCELLANEOUS.

	No.	Amt.
Policies in force at close of 1887.....	945	\$1,191,099 00
Policies in force at close of 1888.....	764	970,910 00
Net decrease.....	181	\$220,189 00
Issued in 1888.....	2	7,225 00
Terminated in 1888.....	183	227,414 00
By death.....	13	17,750 00
By maturity.....	3	2,133 00
By expiration.....	12	22,000 00
By surrender.....	152	177,031 00
By lapse.....	1	1,500 00
By change.....	2	7,000 00

## BUSINESS IN MINNESOTA IN 1888.

In force at end of 1887.....	142	\$588,000 00
Issued during 1888.....	72	282,000 00
Ceased to be in force during 1888.....	19	74,500 00
In force December 31, 1888.....	195	795,500 00
Cash received for premiums.....		20,790 00
Losses paid in 1888.....		2,000 00
Losses incurred in 1888.....		2,000 00

HOME LIFE INSURANCE COMPANY OF NEW YORK  
CITY.

(Organized in 1860.)

GEO. C. RIPLEY, *President.*GEO. H. RIPLEY, *Secretary.*

Attorney in Minnesota, INSURANCE COMMISSIONER.

Capital stock, \$125,000.

## ASSETS DEC. 31, 1888.

Loans on real estate.....	\$1,153,150 00
Loans on collateral security.....	770,100 00
Premium notes, or loans to policy holders.....	609,912 32
Value of real estate owned.....	175,270 36
Market value of bonds and stock owned.....	3,186,417 97
Cash on hand and in bank.....	110,311 52
Accrued interests and rents.....	32,507 86
Not deferred and outstanding premiums.....	132,826 61
All other assets.....	180,302 26
Total admitted assets.....	\$6,355,798 90
Items not admitted.....	7,773 27



## LIABILITIES.

Net present value of outstanding policies, American experience table of mortality with $4\frac{1}{2}$ per cent interest.....	\$4,653,395 00
Total gross policy claims.....	24,182 00
All other liabilities.....	25,246 22
Total liabilities.....	\$4,702,823 22
Surplus over liabilities.....	\$1,652,975 68

## INCOME IN 1888.

Total premium income.....	\$816,847 03
From interest and dividends.....	274,295 62
From rents and all other sources.....	8,043 48
Total income.....	\$1,099,186 13
Excess of income over expenditures.....	\$216,029 77

## EXPENDITURES IN 1888.

Losses and matured endowments.....	\$405,044 00
Dividends and other disbursements to policy holders.....	208,115 51
Total payments to policy holders.....	\$613,159 51
Dividends to stockholders.....	15,000 00
Management expenses.....	224,996 85
Total disbursements.....	\$853,156 36

## MISCELLANEOUS.

	No.	Amt.
Policies in force at close of 1887.....	11,073	\$21,756,596 00
Policies in force at close of 1888.....	11,513	22,748,299 00
Net increase.....	440	\$891,703 00
Issued in 1888.....	2,097	4,856,013 00
Terminated in 1888.....	1,689	3,951,296 00
By death.....	168	339,480 00
By maturity.....	33	65,564 00
By surrender.....	648	1,511,448 00
By lapse.....	437	862,000 00
By change.....		59,554 00
Not taken.....	403	1,113,250 00

## BUSINESS IN MINNESOTA IN 1888.

In force at end of 1887.....	56	\$98,963 00
Issued during 1888.....	29	57,153 00
Ceased to be in force during 1888.....	25	65,750 00
In force Dec. 31, 1888.....	60	90,096 00
Cash received for premiums.....		\$5,777 78
Notes, credits, etc.....		992 75
Total.....		\$6,770 53
Losses paid in 1888.....		3,400 00
Losses incurred in 1888.....		4,400 00

# IMPERIAL LIFE INSURANCE COMPANY OF DETROIT, MICH.

(Organized 1886.)

C. A. NEWCOMB, *President.*ANSON WARING, *Secretary.*

Attorney in Minnesota, J. B. MOORE, Minneapolis.

CAPITAL STOCK, \$118,000.

## ASSETS DEC. 31, 1888.

Loans on real estate.....	\$100,572 50
Market value of bonds and stocks owned.....	1,080 00
Cash on hand and in bank.....	38,527 33
Accrued interests and rents.....	3,030 48
Net deferred and outstanding premiums.....	17,851 06
All other assets.....	1,400 36
Total admitted assets.....	<u>\$162,461 73</u>

## ITEMS NOT ADMITTED.

Bills receivable.....	\$1,005 04
Ledger balances.....	1,399 78
	<u>\$2,404 82</u>

## LIABILITIES.

Net value of outstanding policies, American experience table of mortality with 4½ per cent interest.....	\$23,963 89
Total gross policy claims.....	8,500 00
Total liabilities.....	<u>\$32,463 89</u>
Surplus over liabilities.....	<u>\$129,997 84</u>

## INCOME IN 1888.

Total premium income.....	\$86,815 69
From interests and dividends.....	6,914 64
Total income.....	<u>\$93,730 33</u>
Total expenditures.....	79,276 60
Excess of income over expenditures.....	<u>\$14,453 73</u>

## EXPENDITURES IN 1888.

Losses and matured endowments.....	\$26,000 00
Dividends and other disbursements to policy holders.....	12,070 20
Total payments to policy holders.....	<u>\$38,070 20</u>
Management expenses.....	41,206 40
Total disbursements.....	<u>\$79,276 60</u>

## MISCELLANEOUS.

	No.	Amt.
Policies in force at close of 1867.....	1,328	\$3,418,000 00
Policies in force at close of 1888.....	1,859	6,050,600 00
Net increase.....	531	\$2,632,600 00
Issued in 1886.....	891	3,811,100 00
Terminated in 1888.....	360	1,180,500 00
By maturity.....	9	26,000 00
By surrender.....	251	775,000 00
Decrease.....	5	8,000 00
Not taken.....	95	\$67,000 00

## BUSINESS IN MINNESOTA IN 1888.

In force at end of 1887.....	12	\$37,000 00
Issued during 1888.....	17	68,500 00
Ceased to be in force during 1888.....	1	3,000 00
In force Dec. 31, 1888.....	28	102,500 00
Cash received for premiums.....		\$1,079 02
Notes, credits, etc.....		104 59
Total.....		\$1,183 61

## MANHATTAN LIFE INSURANCE COMPANY, OF NEW YORK CITY.

(Organized in 1850.)

JAMES M. McLEAN, *President.*HENRY T. WEMPLE, *Secretary.*

Attorney in Minnesota, J. T. THURMAN, Minneapolis.

CAPITAL STOCK, \$100,000.

## ASSETS DEC. 31, 1888.

Loans on real estate.....	\$3,622,072 13
Loans on collateral security.....	4,100,562 50
Premium notes, or loans to policy holders.....	906,388 26
Value of real estate owned.....	322,358 83
Market value of bonds and stocks owned.....	1,815,362 98
Cash on hand and in bank.....	194,409 38
Accrued interests and rents.....	116,041 74
Net deferred and outstanding premiums.....	238,021 96
All other assets.....	227,836 20
Total admitted assets.....	\$11,548,048 80

## LIABILITIES.

Net present value of outstanding policies, American experience table of mortality with 4½ per cent interest.....	\$9,411,474 00
Total gross policy claims.....	169,029 30
All other liabilities.....	83,532 64
Total liabilities.....	\$9,664,035 94
Surplus over liabilities.....	\$1,879,012 86

## INCOME IN 1888.

Total premium income.....	\$1,454,829 77
From interest and dividends.....	509,138 63
From rents and all other sources.....	9,995 88
Total income.....	\$1,973,964 28
Excess of income over expenditures.....	\$41,293 38

## EXPENDITURES IN 1888.

Losses and matured endowments.....	\$977,565 00
Dividends and other disbursements to policy holders.....	428,881 41
Total payments to policy holders.....	\$1,406,446 41
Dividends to stockholders.....	32,000 00
Management expenses.....	494,224 49
Total disbursements.....	\$1,932,670 90

## MISCELLANEOUS.

	No.	Amt.
Policies in force at close of 1887.....	14,027	\$39,018,611 00
Policies in force at close of 1888.....	15,567	43,504,413 00
Net increase.....	1,540	\$4,485,802 00
Issued in 1888.....	3,673	11,049,286 00
Terminated in 1888.....	2,147	6,593,684 00
By death.....	296	917,989 00
By maturity.....	36	59,576 00
By surrender.....	137	375,959 00
By lapse.....	838	2,074,446 00
By change.....	114	393,777 00
Not taken.....	726	2,771,977 00

## BUSINESS IN MINNESOTA IN 1888.

In force at end of 1887.....	310	\$742,620 00
Issued during 1888.....	210	540,960 00
Ceased to be in force during 1888.....	157	429,372 00
In force Dec. 31, 1888.....	363	884,208 00
Cash received for premiums.....		\$21,943 98
Notes, credits, etc.....		568 77
Total.....		\$22,512 75
Losses paid in 1888.....		\$8,000 00
Losses incurred in 1888.....		10,500 00

# MASSACHUSETTS MUTUAL LIFE INSURANCE COMPANY, OF SPRINGFIELD, MASS.

(Organized in 1851.)

M. V. B. EDGERLY, *President.*

JOHN A. HALL, *Secretary.*

Attorney in Minnesota, GEO. B. PRATT, Minneapolis.

## ASSETS DEC. 31, 1888.

Loans on real estate.....	\$2,754,265 81
Loans on collateral security.....	863,370 00
Premium notes, or loans to policy holders.....	524,271 04
Value of real estate owned.....	475,215 08
Market value of bonds and stocks owned .....	4,010,562 25
Cash on hand and in bank.....	200,489 31
Accrued interests and rents.....	171,034 36
Net deferred and outstanding premiums.....	293,994 65
All other assets.....	272,320 15
<b>Total admitted assets.....</b>	<b>\$9,565,522 65</b>

## LIABILITIES.

Net present value of outstanding policies, American experience table of mortality with $4\frac{1}{2}$ per cent interest .....	\$8,749,359 00
Total gross policy claims.....	34,539 00
All other liabilities.....	29,449 04
<b>Total liabilities...</b>	<b>\$8,813,347 04</b>
<b>Surplus over liabilities.....</b>	<b>\$752,175 61</b>

## INCOME IN 1888.

Total premium income.....	\$1,639,369 87
From interest and dividends.....	446,107 84
From rents and all other sources.....	17,097 41
<b>Total income.....</b>	<b>\$2,102,575 12</b>
<b>Total expenditures.....</b>	<b>1,550,193 62</b>
<b>Excess of income over expenditures.....</b>	<b>\$552,381 50</b>

## EXPENDITURES IN 1888.

Losses and matured endowments.....	\$655,477 00
Dividends and other disbursements to policy holders.....	406,311 58
<b>Total payments to policy holders.....</b>	<b>\$1,061,788 58</b>
<b>Management expenses.....</b>	<b>488,405 04</b>
<b>Total disbursements.....</b>	<b>\$1,550,193 62</b>



## MISCELLANEOUS.

	No.	Amt.
Policies in force at close of 1887.....	17,688	\$45,351,769 00
Policies in force at close of 1888.....	18,767	49,480,584 00
Net increase.....	1,079	\$4,128,815 00
Issued in 1888.....	3,631	12,007,550 00
Terminated in 1888.....	2,558	7,926,331 00
By death.....	213	510,231 00
By maturity.....	103	147,049 00
By expiration.....	111	260,700 00
By surrender.....	578	1,331,423 00
By lapse.....	737	2,266,600 00
By change.....		550,328 00
Not taken.....	816	2,860,000 00

## BUSINESS IN MINNESOTA IN 1888.

In force at end of 1887.....	214	\$607,066 00
Issued during 1888.....	151	570,020 00
Ceased to be in force during 1888.....	100	377,847 00
In force Dec. 31, 1888.....	265	799,239 00
Cash received for premiums.....		\$20,911 43
Notes, credits, etc.....		2,245 99
Total.....		\$23,157 42
Losses paid in 1888.....		12,274 00
Losses incurred in 1888.....		980 00

## METROPOLITAN LIFE INSURANCE COMPANY, OF NEW YORK CITY.

(Organized in 1866.)

JOSEPH F. KNAPP, *President.*JOHN R. HEGEMAN, *Secretary.*

Attorney in Minnesota, GEO. C. THOMPSON, Minneapolis.

CAPITAL STOCK, \$500,000.

## ASSETS, DEC. 31, 1888.

Loans on real estate.....	\$3,554,900 00
Premium notes, or loans to policy holders.....	132,939 37
Value of real estate owned.....	362,708 66
Market value of bonds and stocks owned.....	2,075,890 55
Cash on hand and in bank.....	45,730 54
Accrued interests and rents.....	63,023 71
Net deferred and outstanding premiums.....	40,843 88
All other assets.....	11,754 64
Total admitted assets.....	\$6,287,781 35

## LIABILITIES.

Net present value of outstanding policies, combined experience table of mortality with 4 per cent interest.....	\$4,835,100 00
Total gross policy claims.....	19,354 75
Special reserve.....	500,000 00
All other liabilities.....	6,303 74
<b>Total liabilities.....</b>	<b>\$5,360,758 49</b>
Surplus over liabilities.....	\$927,022 86

## INCOME IN 1888.

Total premium income.....	\$6,810,109 91
From interest and dividends.....	245,329 13
From rents and other sources.....	30,779 61
<b>Total income.....</b>	<b>\$7,086,218 65</b>
Excess of income over expenditures.....	\$1,485,774 00

## EXPENDITURES IN 1888.

Losses and matured endowments.....	\$2,552,364 28
Dividends and other disbursements to policy holders.....	70,694 49
<b>Total payments to policy holders.....</b>	<b>\$2,623,058 77</b>
Dividends to stockholders.....	35,000 00
Management expenses.....	2,942,385 88
<b>Total disbursements.....</b>	<b>\$5,600,444 65</b>

## MISCELLANEOUS.

	No.	Amount.
Policies in force at close of 1887.....	3,524	\$4,272,790 00
Policies in force at close of 1888.....	3,379	4,067,777 00
Net decrease.....	145	\$205,013 00
Issued in 1888.....	185	285,435 00
Terminated in 1888.....	330	440,448 00
By death.....	106	119,014 00
By maturity.....	5	2,259 00
By expiration.....	4	3,803 00
By surrender.....	111	164,324 00
By lapse.....	94	129,548 00
By change.....	2	3,000 00
Not taken.....	8	18,500 00
Industrial policies in force.....	1,632,642	176,533 142 00

## BUSINESS IN MINNESOTA IN 1888.

In force at end of 1887.....	8	\$18,280 00
Issued during 1888.....	3	4,000 00
Ceased to be in force during 1888.....	2	6,532 00
In force Dec. 31, 1888. { Life policies.....	9	15,748 00
{ Industrial policies.....	5,001	540,745 00
Cash received for premiums.....		17,352 94
Losses paid in 1888.....		9,223 75
Losses incurred in 1888.....		9,223 75

# MICHIGAN MUTUAL LIFE INSURANCE COMPANY, OF DETROIT, MICH.

(Organized in 1867.)

J. S. FARRAND, *President.*O. R. LOOKER, *Secretary.*

Attorney in Minnesota, A. R. MCGILL, St. Paul.

CAPITAL STOCK, \$250,000.

## ASSETS DEC. 31, 1888.

Loans on real estate.....	\$1,687,841 80
Loans on collateral security.....	10,000 00
Premium notes, or loans to policy holders.....	164,065 80
Value of real estate owned.....	142,936 78
Market value of bonds and stocks owned.....	1,893 75
Cash on hand and in bank.....	69,848 97
Accrued interests and rents.....	65,136 51
Net deferred and outstanding premiums.....	123,481 63
Total admitted assets.....	\$2,265,205 24

## ITEMS NOT ADMITTED.

Bills receivable.....	\$20,790 92
Agents' ledger balance.....	5,225 46
	\$26,016 38

## LIABILITIES.

Net present value of outstanding policies, American experience table of mortality with $4\frac{1}{2}$ per cent interest.....	\$1,920,834 00
Total gross policy claims.....	22,000 00
All other liabilities.....	447 27
Total liabilities.....	\$1,943,281 27
Surplus over liabilities.....	\$321,923 97

## INCOME IN 1888.

Total premium income.....	\$619,576 40
From interest and dividends.....	113,476 65
Total income.....	\$733,053 05
Excess of income over expenditures.....	\$282,299 92

## EXPENDITURES IN 1888.

Losses and matured endowments.....	\$168,572 36
Dividends and other disbursements to policy holders.....	79,946 80
Total payments to policy holders.....	\$248,519 16
Dividends to stockholders.....	17,500 00
Management expenses.....	184,733 97
Total disbursements.....	\$450,753 13

## MISCELLANEOUS.

	No.	Amount.
Policies in force at close of 1887.....	9,821	\$17,930,545 00
Policies in force at close of 1888.....	10,442	18,930,439 00
Net increase.....	621	\$999,894 00
Issued in 1888.....	2,090	3,832,093 00
Terminated in 1888.....	1,606	3,142,659 00
By death.....	68	112,752 00
By expiration.....	8	6,415 00
By surrender.....	300	375,558 00
By lapse.....	993	2,138,932 00
By change.....	94	198,515 00
Not taken.....	143	311,000 00

## BUSINESS IN MINNESOTA IN 1888.

In force at end of 1887.....	203	\$633,487 00
Issued during 1888.....	88	143,003 00
Ceased to be in force during 1888.....	28	94,398 00
In force Dec. 31, 1888.....	263	682,092 00
Cash received for premiums .....		17,031 43

## MUTUAL LIFE INSURANCE COMPANY OF NEW YORK CITY.

(Organized in 1842.)

RICHARD A. McCURDY, *President.*WM. J. EASTON, *Secretary.*

Attorney in Minnesota, H. A. GALE, Minneapolis.

## ASSETS DEC. 31, 1888.

Loans on real estate.....	\$49,617,874 02
Loans on collateral security.....	10,033,000 00
Value of real estate owned.....	11,753,125 34
Market value of bonds and stocks owned.....	42,207,856 14
Cash on hand and in bank.....	2,813,277 60
Accrued interests and rents.....	922,440 58
Net deferred and outstanding premiums.....	1,738,297 05
All other assets .....	6,408,848 00
Total admitted assets.....	\$125,494,718 73

## ITEMS NOT ADMITTED.

Bills receivable.....	\$127,393 85
Ledger balance.....	25,466 72
Total.....	\$152,860 57

## LIABILITIES.

Net present value of outstanding policies, American experience table of mortality with 4½ per cent interest.....	\$109,940,006 00
Total gross policy claims.....	404,582 58
All other liabilities .....	175,124 35
Total liabilities.....	<u>\$110,519,712 93</u>
Surplus over liabilities.....	<u>\$14,975,005 80</u>

## INCOME IN 1888.

Total premium income.....	\$19,444,307 75
From interest and dividends.....	5,676,938 65
From rents and all other sources.....	1,094,686 12
Total income.....	<u>\$26,215,932 52</u>
Total expenditures.....	<u>19,699,657 53</u>
Excess of income over expenditures.....	<u>\$6,516,274 99</u>

## EXPENDITURES IN 1888.

Losses and matured endowments.....	\$9,426,756 37
Dividends and other disbursements to policy holders.....	5,300,793 85
Total payments to policy holders.....	<u>\$14,727,550 22</u>
Management expenses.....	<u>4,972,107 31</u>
Total disbursements.....	<u>\$19,699,657 53</u>

## MISCELLANEOUS.

	No.	Amount.
Policies in force at close of 1887.....	140,830	\$427,583,359 00
Policies in force at close of 1888.....	153,190	482,050,579 00
Net increase.....	17,360	\$54,467,220 00
Issued in 1888.....	31,080	95,584,858 00
Terminated in 1888.....	15,237	48,878,814 00
By death.....	2,072	7,293,326 00
By maturity.....	869	2,227,226 00
By expiration.....	11	41,750 00
By surrender.....	2,387	9,632,833 00
By lapse.....	5,647	14,896,223 00
By change.....	64	745,483 00
Not taken.....	4,187	14,041,973 00

## BUSINESS IN MINNESOTA IN 1888.

In force at end of 1887.....	1,975	\$6,441,798 00
Issued during 1888.....	602	1,954,050 00
Ceased to be in force during 1888.....	393	1,484,920 00
In force Dec. 31, 1888.....	2,184	6,910,928 00
Cash received for premiums.....		261,054 00
Losses paid in 1888.....		122,390 00
Losses incurred in 1888.....		122,390 00



# MUTUAL BENEFIT LIFE INSURANCE COMPANY OF NEWARK, N. J.

(Organized in 1845.)

AMZI DODD, *President.*EDWARD L. DOBBINS, *Secretary.*

Attorney in Minnesota, HENRY L. SHEPARD, Minneapolis.

## ASSETS DEC. 31, 1888.

Loans on real estate.....	\$20,553,760 35
Loans on collateral security.....	3,603,245 68
Premium notes, or loans to policy holders.....	4,984,840 65
Value of real estate owned.....	1,285,426.05
Market value of bonds and stocks owned.....	10,712,701 33
Cash on hand and in bank.....	699,877 76
Accrued interests and rents.....	596,551 68
Net deferred and outstanding premiums .....	361,495 31
All other assets.....	716,561 73
Total admitted assets.....	\$43,514,460 54
Items not admitted, ledger balances.....	\$894.75

## LIABILITIES.

Net present valuation of outstanding policies, American experience table of mortality with $4\frac{1}{2}$ per cent interest.....	\$37,339,092 00
Total gross policy claims.....	228,613 07
All other liabilities.....	217,260 26
Total liabilities.....	\$37,784,965 33
Surplus over liabilities.....	\$5,729,495 21

## INCOME IN 1888.

Total premium income.....	\$5,083,388 88
From interest and dividends.....	2,260,442 84
From rents and all other sources.....	27,420 46
Total income.....	\$7,371,252 18
Excess of income over expenditures.....	\$1,487,745 23

## EXPENDITURES IN 1888.

Losses and matured endowments.....	\$3,016,816 09
Dividends and other disbursements to policy holders.....	1,936,984 15
Total payments to policy holders.....	\$4,953,800 24
Management expenses.....	929,706 71
Total disbursements.....	\$5,883,506 95

## MISCELLANEOUS.

	No.	Amount.
Policies in force at close of 1887.....	55,362	\$147,189,408 00
Policies in force at close of 1888.....	57,954	153,498,623 00
Net increase.....	2,592	\$6,309,220 00
Issued in 1888.....	7,355	18,760,513 00
Terminated in 1888.....	4,796	12,602,021 00
By death.....	920	2,843,994 00
By maturity.....	63	125,476 00
By expiration.....	593	1,569,343 00
By surrender.....	1,590	4,239,926 00
By lapse.....	994	2,219,999 00
Not taken.....	636	1,603,283 00

## BUSINESS IN MINNESOTA IN 1888.

In force at end of 1887.....	910	\$1,987,589 00
Issued during 1888.....	279	784,276 00
Ceased to be in force during 1888.....	185	449,899 00
In force Dec. 31, 1888.....	1,004	2,321,966 00
Cash received for premiums.....		\$51,676 20
Losses paid in 1888.....		\$31,359 00
Losses incurred in 1888.....		37,359 00

## NATIONAL LIFE INSURANCE COMPANY, OF MONT- PELIER, VERMONT.

(Organized in 1848.)

CHARLES DEWEY, *President.*GEO. W. REED, *Secretary.*

Attorney in Minnesota, P. D. McMILLAN, Minneapolis.

## ASSETS DEC. 31, 1888.

Loans on real estate.....	\$2,253,991 76
Loans on collateral security.....	48,000 00
Premium notes, or loans to policy holders.....	240,668 95
Value of real estate owned.....	186,470 67
Market value of bonds and stocks owned.....	1,866,119 53
Cash on hand and in bank.....	258,591 55
Accrued interests and rents.....	86,241 13
Net deferred and outstanding premiums.....	106,692 56
All other assets.....	120,746 98
Total admitted assets.....	\$5,167,523 13

## ITEMS NOT ADMITTED.

Ledger balances.....	\$26,589 16
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## LIABILITIES.

Net present value of outstanding policies, American experience table of mortality with $4\frac{1}{2}$ per cent interest.....	\$3,783,467 00
Total gross policy claims.....	9,000 00
All other liabilities.....	296,009 76
Total liabilities.....	\$4,088,476 76
Surplus over liabilities.....	\$1,079,046 37

## INCOME IN 1888.

Total premium income.....	\$1,281,173 37
From interest and dividends.....	252,606 39
From rents and all other sources.....	7,757 62
Total income.....	\$1,541,537 38
Excess of income over expenditures.....	\$599,486 63

## EXPENDITURES IN 1888.

Losses and matured endowments.....	\$323,919 03
Dividends and other disbursements to policy holders.....	295,577 63
Total payments to policy holders.....	\$619,496 66
Management expenses.....	322,554 09
Total disbursements.....	\$942,050 75

## MISCELLANEOUS.

	No.	Amount.
Policies in force at close of 1887.....	14,348	\$24,922,324 00
Policies in force at close of 1888.....	16,850	32,312,303 00
Net increase.....	2,502	\$7,389,979 00
Issued in 1888.....	4,994	11,906,200 00
Terminated in 1888.....	2,516	4,586,409 00
By death.....	149	291,209 00
By maturity.....	17	32,710 00
By expiration.....	1	1,500 00
By surrender.....	889	1,036,750 00
By lapse.....	654	1,216,500 00
By change.....	113	490,940 00
Not taken.....	693	1,516,800 00

## BUSINESS IN MINNESOTA IN 1888.

In force at end of 1887.....	70	\$142,325 00
Issued during 1888.....	24	75,400 00
Ceased to be in force during 1888.....	1	3,000 00
In force Dec. 31, 1888.....	93	214,725 00
Cash received for premiums.....		5,002 03

# NEW ENGLAND MUTUAL LIFE INSURANCE COMPANY, OF BOSTON, MASS.

(Organized in 1835.)

B. F. STEVENS, *President.*S. F. TRULL, *Secretary.*

Attorney in Minnesota, F. L. BANCROFT, St. Paul.

## ASSETS DEC. 31, 1888.

Loans on real estate.....	\$2,931,660 00
Loans on collateral security .....	1,015,812 97
Premium notes, or loans to policy holders.....	701,248 68
Value of real estate owned.....	1,757,428 64
Market value of bonds and stocks owned.....	10,853,725 80
Cash on hand and in bank.....	692,562 91
Accrued interests and rents .....	208,022 05
Net deferred and outstanding premiums.....	139,024 50
All other assets.....	1,162,957 45
Total admitted assets.....	\$19,462,443 00

## ITEMS NOT ADMITTED.

Ledger balances.....	\$262,095 45
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## LIABILITIES.

Net present value of outstanding policies, American experience table of mortality with $4\frac{1}{2}$ per cent interest.....	\$16,047,856 83
Total gross policy claims .....	113,537 00
All other liabilities.....	120,294 15
Total liabilities.....	\$16,281,687 98
Surplus over liabilities.....	\$3,180,755 02

## INCOME IN 1888.

Total premium income.....	\$2,472,809 95
From interest and dividends.....	882,435 18
From rents and all other sources.....	131,670 66
Total income.....	\$3,486,915 79
Excess of income over expenditures.....	\$665,807 04

## EXPENDITURES IN 1888.

Losses and matured endowments.....	\$1,403,857 00
Dividends and other disbursements to policy holders.....	899,970 58
Total payments to policy holders.....	\$2,303,827 58
Management expenses.....	517,281 17
Total disbursements.....	\$2,821,108 75

## MISCELLANEOUS.

	No.	Amount.
Policies in force at close of 1887.....	23,817	\$69,754,124 00
Policies in force at close of 1888.....	25,305	73,591,241 00
Net increase.....	1,488	\$3,837,117 00
Issued in 1888.....	3,229	9,088,279 00
Terminated in 1888.....	1,788	5,454,864 00
By death.....	396	1,241,716 00
By maturity.....	109	184,558 00
By expiration.....	103	206,500 00
By surrender.....	420	1,123,690 00
By lapse.....	426	1,658,436 00
By change.....	9	176,964 00
Not taken.....	325	863,000 00

## BUSINESS IN MINNESOTA IN 1888.

In force at end of 1887.....	537	\$1,562,021 00
Issued during 1888.....	54	137,156 00
Ceased to be in force during 1888.....	28	114,449 00
In force Dec. 31, 1888.....	563	1,584,728 00
Cash received for premiums.....		\$24,046 45
Notes, credits, etc.....		10,994 00
Total.....		\$35,040 45
Losses paid in 1888.....		\$2,500 00
Losses incurred in 1888.....		6,500 00



# NEW YORK LIFE INSURANCE COMPANY OF NEW YORK CITY.

(Organized in 1845.)

WILLIAM H. BEERS, *President*.

Attorney in Minnesota, INSURANCE COMMISSIONER, St. Paul.

## ASSETS DEC. 31, 1888.

Loans on real estate.....	\$16,966,932 50
Loans on collateral security.....	1,676,250 00
Premium notes, or loans to policy holders.....	378,874 10
Value of real estate owned.....	9,308,152 08
Market value of bonds and stocks owned.....	54,566,901 58
Cash on hand and in bank.....	3,695,836 94
Accrued interests and rents.....	451,605 24
Net deferred and outstanding premiums.....	1,984,659 46
All other assets .....	3,655,850 36
Total admitted assets.....	\$92,685,062 26

## ITEMS NOT ADMITTED.

Agents' ledger balances.....	\$298,959 43
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## LIABILITIES.

Net present value of outstanding policies, American experience table of mortality with $4\frac{1}{2}$ per cent interest.....	\$78,147,561 00
Total gross policy claims .....	941,897 96
All other liabilities.....	46,504 21
Total liabilities.....	\$79,135,963 17
Surplus over liabilities.....	\$13,549,099 09

## INCOME IN 1888.

Total premium income.....	\$20,560,609 53
From interest and dividends.....	4,144,059 41
From rents and all other sources.....	166,505 02
Total income.....	\$24,871,173 96
Excess of income over expenditures.....	\$9,481,563 49

## EXPENDITURES IN 1888.

Losses and matured endowments.....	\$5,425,926 78
Dividends and other disbursements to policy holders.....	5,547,143 27
Total payments to policy holders.....	\$10,973,070 05
Management expenses.....	4,416,540 42
Total disbursements.....	\$15,389,610 47

## MISCELLANEOUS.

	No.	Amt.
Policies in force at close of 1887.....	113,323	\$358,935,536 00
Policies in force at close of 1888.....	129,911	419,886,505 00
Net increase.....	16,588	\$60,950,969 00
Issued in 1888.....	33,226	120,684,037 00
Terminated in 1888.....	16,746	64,068,762 00
By death.....	1,290	4,722,697 00
By maturity.....	562	1,079,369 00
By expiration.....	292	50,000 00
By surrender.....	1,926	11,345,771 00
By lapse.....	7,027	22,913,483 00
By change.....		678,150 00
Not taken.....	5,649	23,279,292 00

## BUSINESS IN MINNESOTA IN 1888.

n force at end of 1887.....	1,170	\$3,519,289 00
Issued during 1888.....	389	3,612,348 00
Ceased to be in force during 1888.....	221	1,430,967 00
In force Dec. 31, 1888.....	1,338	5,700,670 00
Cash received for premiums.....		\$211,562 92
Losses paid in 1888.....		\$31,333 73
Losses incurred in 1888.....		31,333 73

## NORTHWESTERN MUTUAL LIFE INSURANCE COM- PANY OF MILWAUKEE, WIS.

(Organized in 1858.)

H. L. PARMER, *President.*J. W. SKINNER, *Secretary.*

Attorney in Minnesota, LINDSEY WEBB, Minneapolis.

## ASSETS DEC. 31, 1888.

Loans on real estate.....	\$27,352,727 03
Premium notes, or loans to policy holders.....	789,801 70
Value of real estate owned.....	1,243,468 41
Market value of bonds and stocks owned.....	1,051,025 00
Cash on hand and in bank.....	1,066,152 42
Accrued interests and rents.....	449,582 57
Net deferred and outstanding premiums.....	633,003 10
All other assets.....	65,100 14
Total admitted assets.....	\$32,650,860 37
Items not admitted.....	21,950 99

## LIABILITIES.

Net present value of outstanding policies, American experience table of mortality with $4\frac{1}{2}$ per cent interest .....	\$25,586,366 00
Total gross policy claims.....	210,649 62
All other liabilities.....	185,183 00
Total liabilities.....	\$25,982,198 62
Surplus over liabilities.....	\$6,668,661 75

## INCOME IN 1888.

Total premium income.....	\$6,229,424 10
From interest and dividends.....	1,691,628 44
From rents and all other sources.....	79,580 91
Total income.....	\$8,000,633 45
Excess of income over expenditures.....	\$3,721,543 66

## EXPENDITURES IN 1888.

Losses and matured endowments.....	\$1,581,840 84
Dividends and other disbursements to policy holders.....	1,217,856 09
Total payments to policy holders.....	\$2,799,696 93
Management expenses.....	1,479,392 86
Total disbursements.....	\$4,279,089 79

## MISCELLANEOUS.

	No.	Amt.
Policies in force at close of 1887.....	64,406	\$147,615,323 00
Policies in force at close of 1888.....	73,130	172,518,891 00
Net increase.....	8,724	\$24,903,568 00
Issued in 1888.....	15,212	40,258,811 00
Terminated in 1888.....	6,756	18,673,792 00
By death.....	654	1,420,152 00
By expiration.....	185	2,802,427 00
By surrender.....	529	1,133,692 00
By lapse.....	3,860	8,432,000 00
By change.....		320,401 60
Not taken.....	1,524	4,565,114 00

## BUSINESS IN MINNESOTA IN 1888.

In force at end of 1887.....	4,220	\$7,242,886 00
Issued during 1888.....	584	1,717,242 00
Ceased to be in force during 1888.....	485	1,032,323 00
In force Dec. 31, 1888.....	4,319	7,927,805 00
Cash received for premiums.....		\$178,978 05
Notes, credits, etc.....		4,050 07
Total.....		\$183,028 12
Losses paid in 1888.....		\$81,210 30
Losses incurred in 1888.....		88,410 30

# PACIFIC MUTUAL LIFE INSURANCE COMPANY OF SAN FRANCISCO, CAL.

(Organized in 1868.)

GEO. A. MOORE, *President*.

J. V. PATTERSON, *Secretary*.

Attorney in Minnesota, A. R. MCGILL, St. Paul.

CAPITAL STOCK, \$100,000.

## ASSETS DEC. 31, 1888.

Loans on real estate.....	\$1,431,365 58
Loans on collateral security.....	1,711 94
Premium notes, or loans to policy holders.....	77,744 32
Value of real estate owned.....	114,565 40
Market value of bonds and stocks owned.....	22,100 00
Cash on hand and in bank.....	97,107 91
Accrued interests and rents.....	63,426 64
Net deferred and outstanding premiums.....	144,826 48
All other assets.....	1,600 00
Total admitted assets.....	<u>\$1,954,448 27</u>

## ITEMS NOT ADMITTED.

Agents' ledger balances, furniture and stationery.....	\$14,247 78
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## LIABILITIES.

Net present value of outstanding policies, American experience table of mortality with $4\frac{1}{2}$ per cent interest.....	\$1,688,564 00
Total gross policy claims.....	9,187 00
Total liabilities.....	<u>\$1,697,751 00</u>
Surplus over liabilities.....	\$261,697 27

## INCOME IN 1888.

Total premium income—life and accident.....	\$581,828 02
From interest and dividends.....	115,917 13
From rents and all other sources.....	1,708 80
Total income.....	<u>\$699,453 95</u>
Excess of income over expenditures.....	\$209,701 79

## EXPENDITURES IN 1888.

Losses — life and accident.....	\$220, 167 71
Dividends and other disbursements to policy holders.....	85, 317 57
Total payments to policy holders.....	\$305, 485 28
Dividends to stockholders.....	10, 000 00
Management expenses.....	174, 266 88
Total disbursements.....	\$489, 752 16

## MISCELLANEOUS.

	No.	Amt.
Policies in force at close of 1887 { Accident.....	7, 596	\$15, 707, 850 00
{ Life.....	3, 313	8, 429, 794 00
Policies in force at close of 1888 { Accident.....	12, 650	26, 475, 150 00
{ Life.....	3, 657	9, 672, 888 00
Net increase..... { Accident.....	5, 054	10, 767, 300 00
{ Life.....	344	1, 243, 094 00
Issued in 1888..... { Accident.....	26, 363	58, 499, 255 00
{ Life.....	4, 045	10, 664, 664 00
Terminated in 1888..... { Accident.....	13, 713	32, 024, 105 00
{ Life.....	388	991, 756 00
By death..... { Accident.....	19	20, 300 00
{ Life.....	48	112, 273 00
By maturity..... { Accident.....	10, 966	27, 191, 950 00
{ Life.....	11	22, 600 00
By expiration..... { Accident.....	407	853, 500 00
{ Life.....	7	23, 000 00
By surrender, life.....	58	170, 703 00
By lapse, life.....	199	485, 200 00
By change, life.....		2, 500 00
Not taken..... { Accident.....	2, 321	3, 958, 355 00
{ Life.....	65	174, 480 00

## BUSINESS IN MINNESOTA IN 1888.

In force at end of 1887..... { Accident.....	136	\$284, 000 00
{ Life.....	46	81, 679 00
Issued during 1888..... { Accident.....	196	483, 500 00
{ Life.....	17	22, 500 00
Ceased to be in force during 1888 { Accident.....	192	452, 500 00
{ Life.....	6	5, 194 00
In force Dec. 31, 1888..... { Accident.....	140	315, 000 00
{ Life.....	57	98, 985 00
Cash received for premiums..... { Accident.....		1, 760 70
{ Life.....		2, 500 14
Losses paid in 1888, accident.....		\$194 99
Losses incurred in 1888, accident.....		194 99



# PENN MUTUAL LIFE INSURANCE COMPANY OF PHILADELPHIA, PENN.

(Organized in 1847.)

EDWARD M. NEEDLES, *President.*

HENRY C. BROWN, *Secretary.*

Attorney in Minnesota, E. A. HOLBROOK, Minneapolis.

## ASSETS DEC. 31, 1888.

Loans on real estate.....	\$4, 044, 729 74
Loans on collateral security.....	874, 100 00
Premium notes, or loans to policy holders.....	955, 635 69
Value of real estate owned.....	690, 494 07
Market value of bonds and stocks owned.....	5, 871, 695 16
Cash on hand and in bank.....	467, 539 96
Accrued interests and rents.....	89, 049 46
Net deferred and outstanding premiums .....	330, 277 95
All other assets.....	416, 176 84
Total admitted assets.....	<u>\$13, 739, 698 87</u>

## ITEMS NOT ADMITTED.

Bills receivable.....	\$46, 051 05
Ledger balances.....	1, 678 37
Total.....	<u>\$47, 729 42</u>

## LIABILITIES.

Net present value of outstanding policies, American experience table of mortality with $4\frac{1}{2}$ per cent interest.....	\$10, 845, 854 00
Total gross policy claims.....	69, 560 00
All other liabilities .....	360, 943 80
Total liabilities.....	<u>\$11, 276, 357 80</u>
Surplus over liabilities.....	<u>\$2, 463, 341 07</u>

## INCOME IN 1888.

Total premium income .....	\$2, 636, 291 09
From interest and dividends.....	664, 136 87
From rents and all other sources.....	58, 327 47
Total income.....	<u>\$3, 358, 755 43</u>
Total expenditures.....	2, 229, 388 22
Excess of income over expenditures .....	<u>\$1, 124, 367 21</u>

## EXPENDITURES IN 1888.

Losses and matured endowments.....	\$898,561 00
Dividends and other disbursements to policy holders .....	721,534 94
Total payments to policy holders.....	\$1,620,095 94
Management expenses.....	609,292 28
Total disbursements .....	\$2,229,388 22

## MISCELLANEOUS.

	No.	Amt.
Policies in force at close of 1887.....	24,909	\$61,018,805 00
Policies in force at close of 1888.....	27,714	68,372,882 00
Net increase.....	2,805	\$7,354,077 00
Issued in 1888.....	5,302	13,901,833 00
Terminated in 1888 .....	2,880	7,432,013 00
By death.....	322	857,350 00
By maturity.....	30	75,237 00
By expiration.....	96	214,000 00
By surrender.....	596	1,327,762 00
By lapse.....	1,210	2,740,380 00
By change.....	20	492,674 00
Not taken.....	606	1,724,610 00

## BUSINESS IN MINNESOTA IN 1888.

In force at end of 1887.....	257	\$782,800 00
Issued during 1888.....	100	297,000 00
Ceased to be in force during 1888 .....	40	162,000 00
In force Dec. 31, 1888.....	317	917,800 00
Cash received for premiums.....		\$25,745 59
Notes, credits, etc.....		692 26
Total .....		\$26,437 85
Losses paid in 1888.....		\$4,128 00
Losses incurred in 1888.....		4,128 00

# PHENIX MUTUAL LIFE INSURANCE COMPANY OF HARTFORD, CONN.

(Organized in 1851.)

AARON C. GOODMAN, *President.*JOHN M. HOLCOMBE, *Secretary.*

Attorney in Minnesota, JOSIAH THOMPSON, Minneapolis.

CAPITAL STOCK, \$100,000.

## ASSETS DEC. 31, 1888.

Loans on real estate.....	\$6,456,077 39
Premium notes, or loans to policy holders.....	968,659 36
Value of real estate owned.....	1,315,465 18
Market value of bonds and stocks owned.....	948,955 20
Cash on hand and in bank.....	628,372 16
Accrued interests and rents.....	158,919 55
Net deferred and outstanding premiums.....	41,268 46
All other assets.....	55,880 00
Total admitted assets.....	<u>\$10,573,597 30</u>

## LIABILITIES.

Net present value of outstanding policies, American experience table of mortality with $4\frac{1}{2}$ per cent interest.....	\$8,390,617 00
Total gross policy claims.....	104,368 00
All other liabilities.....	265,679 26
Total liabilities.....	<u>\$8,760,659 26</u>
Surplus over liabilities.....	<u>\$1,812,938 04</u>

## INCOME IN 1888.

Total premium income.....	\$678,247 54
From interest and dividends.....	576,612 09
From rents and all other sources.....	45,460 47
Total income.....	<u>\$1,300,320 10</u>
Excess of income over expenditures.....	<u>\$107,687 60</u>

## EXPENDITURES IN 1888.

Losses and matured endowments.....	\$739,185 42
Dividends and other disbursements to policy holders.....	218,708 69
Total payments to policy holders.....	<u>\$957,894 11</u>
Dividends to stockholders.....	24,000 00
Management expenses.....	210,738 39
Total disbursements.....	<u>\$1,192,632 50</u>

## MISCELLANEOUS.

	No.	Amt.
Policies in force at close of 1887.....	17, 677	\$25, 267, 687 00
Policies in force at close of 1888.....	17, 468	24, 872, 295 00
Net decrease.....	209	\$395, 392 00
Issued in 1888.....	1, 178	1, 710, 086 00
Terminated in 1888.....	1, 402	2, 139, 320 00
By death.....	325	551, 504 00
By maturity.....	176	161, 229 00
By expiration.....	10	18, 500 00
By surrender.....	151	233, 583 00
By lapse.....	448	628, 043 00
By change.....	114	257, 733 00
Not taken.....	178	288, 728 00

## BUSINESS IN MINNESOTA IN 1888.

In force at end of 1887.....	344	\$448, 664 00
Issued during 1888.....	1	650 00
Ceased to be in force during 1888.....	19	36, 461 00
In force Dec. 31, 1888.....	326	412, 853 00
Cash received for premiums.....		\$4, 633 86
Losses paid in 1888.....		\$15, 609 00
Losses incurred in 1888.....		14, 609 00

## PROVIDENT LIFE AND TRUST COMPANY OF PHILADELPHIA, PA.

(Organized in 1865.)

SAMUEL R. SHIPLEY, *President.*

Attorney in Minnesota, J. WATSON SMITH, Minneapolis.

CAPITAL STOCK, \$1,000,000.

## ASSETS DEC. 31, 1888.

Loans on real estate.....	\$7, 117, 879 16
Premium notes, or loans to policy holders.....	310, 278 59
Value of real estate owned.....	1, 040, 725 92
Market value of bonds and stocks owned.....	5, 682, 835 00
Cash on hand and in bank.....	20, 905 64
Accrued interests and rents.....	141, 295 53
Net deferred and outstanding premiums.....	441, 474 39
All other assets.....	285, 485 00

Total admitted assets..... \$15, 040, 879 28

## LIABILITIES.

Net present value of outstanding policies, American experience table of mortality with $4\frac{1}{2}$ per cent interest.....	\$12,017,529 00
Total gross policy claims.....	48,686 85
All other liabilities.....	56,731 74
Total liabilities.....	\$12,122,947 59
Surplus over liabilities.....	\$2,917,931 64

## INCOME IN 1888.

Total premium income.....	\$2,548,468 18
From interest and dividends.....	598,544 14
From rents and all other sources.....	87,619 03
Total income.....	\$3,204,631 35
Excess of income over expenditures.....	\$1,519,282 95

## EXPENDITURES IN 1888.

Losses and matured endowments.....	\$802,855 00
Dividends and other disbursements to policy holders.....	411,148 74
Total payments to policy holders.....	\$1,214,003 74
Management expenses.....	471,344 66
Total disbursements.....	\$1,685,348 40

## MISCELLANEOUS.

	No.	Amt.
Policies in force at close of 1887.....	18,337	\$57,137,653 00
Policies in force at close of 1888.....	20,736	64,003,694 00
Net increase.....	2,399	\$6,866,041 00
Issued in 1888.....	3,810	11,122,075 00
Terminated in 1888.....	1,550	4,809,400 00
By death.....	165	620,934 00
By maturity.....	84	204,995 00
By expiration.....	6	21,500 00
By surrender.....	282	934,810 00
By lapse.....	865	2,368,411 00
By change.....	85	476,750 00
Not taken.....	63	182,000 00

## BUSINESS IN MINNESOTA IN 1888.

In force at end of 1887.....	6	\$13,494 00
Issued during 1888.....	66	152,500 00
Ceased to be in force during 1888.....	3	7,000 00
In force Dec. 31, 1888.....	69	158,994 00
Cash received for premiums.....		\$1,308 59



# PROVIDENT SAVINGS LIFE ASSURANCE SOCIETY OF NEW YORK CITY.

(Organized in 1875.)

SHEPPARD HOMANS, *President.*WM. E. STEVENS, *Secretary.*

Attorney in Minnesota, A. R. MCGILL, St. Paul.

CAPITAL STOCK, \$100,000.

## ASSETS DEC. 31, 1888.

Loans on real estate.....	\$127,400 00
Loans on collateral security.....	45,000 00
Premium notes, or loans to policy holders.....	3,500 00
Market value of bonds and stocks owned.....	261,362 50
Cash on hand and in bank.....	79,999 73
Accrued interests and rents.....	3,782 74
Not deferred and outstanding premiums.....	48,120 36
Total admitted assets.....	<u>\$569,165 33</u>

## ITEMS NOT ADMITTED.

Agents' ledger balances.....	\$21,961 57
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## LIABILITIES.

Net present value of outstanding policies, American experience table of mortality with $4\frac{1}{2}$ per cent interest.....	\$161,043 00
Total gross policy claims.....	35,000 00
Total liabilities.....	<u>\$196,043 00</u>
Surplus over liabilities.....	<u>\$378,122 33</u>

## INCOME IN 1888.

Total premium income.....	\$1,145,152 65
From interest and dividends.....	18,472 56
Total income.....	<u>\$1,163,625 21</u>
Excess of income over expenditures.....	<u>\$151,704 07</u>

## EXPENDITURES IN 1888.

Losses and matured endowments.....	\$401,232 51
Dividends and other disbursements to policy holders.....	381,409 40
Total payments to policy holders.....	<u>\$782,641 91</u>
Management expenses.....	229,279 23
Total disbursements.....	<u>\$1,011,921 14</u>

## MISCELLANEOUS.

	No.	Amt.
Policies in force at close of 1887.....	11,564	\$46,871,686 00
Policies in force at close of 1888.....	12,853	51,012,286 00
Net increase.....	1,289	\$4,140,600 00
Issued in 1888.....	3,266	11,940,200 00
Terminated in 1888.....	1,998	7,861,600 00
By death.....	100	394,725 00
By expiration.....	1,606	6,388,625 00
By surrender.....	16	21,750 00
By lapse.....	36	13,500 00
By change.....	.....	171,000 00
Not taken.....	240	872,000 00

## BUSINESS IN MINNESOTA IN 1888.

In force at end of 1887.. .....	303	\$1,153,000 00
Issued during 1888.....	67	249,000 00
Ceased to be in force during 1888.....	47	197,000 00
In force Dec. 31, 1888.....	323	1,205,000 00
Cash received for premiums.....	.....	15,471 61

## PRUDENTIAL LIFE INSURANCE COMPANY OF NEW-ARK, N. J.

(Organized in January, 1876.)

JOHN F. DRYDEN, *President.*E. S. JOHNSON, *Secretary.*

Attorney in Minnesota, W. F. GRAY, St. Paul.

## ASSETS DEC. 31, 1888.

Loans on real estate.....	\$2,382,732 00
Value of real estate owned.....	46,000 00
Market value of bonds and stocks owned.....	267,117 50
Cash on hand and in bank.....	87,217 89
Accrued interests and rents.....	21,268 41
Net deferred and outstanding premiums.....	61,879 26
All other assets.....	7,947 50
Total admitted assets.....	\$2,874,162 56

## ITEMS NOT ADMITTED.

Fixtures, furniture and stationery.....	\$47,257 67
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## LIABILITIES.

Net present value of outstanding policies, American experience table of mortality with $4\frac{1}{2}$ per cent interest.....	\$1,851,602 00
Total liabilities.....	\$1,851,602 00
Surplus over liabilities.....	\$1,022,560 56

## INCOME IN 1888.

Total premium income.....	\$3,659,495 22
From interest and dividends.....	95,576 26
From rents and all other sources.....	2,012 67
Total income.....	\$3,757,084 15
Excess of income over expenditures.....	\$841,655 53

## EXPENDITURES IN 1888.

Losses.....	\$1,096,234 15
Dividends and other disbursements to policy holders.....	649 77
Total payments to policy holders.....	\$1,096,883 92
Dividends to stockholders.....	20,930 00
Management expenses.....	1,797,614 70
Total disbursements.....	\$2,915,428 62

## MISCELLANEOUS.

	No.	Amt.
Policies in force at close of 1887.....	737,644	\$82,639,088 00
Policies in force at close of 1888.....	850,979	93,661,783 00
Net increase.....	113,335	\$11,022,695 00
Issued in 1888.....	525,363	53,508,281 00
Terminated in 1888.....	445,462	47,824,699 00
By death.....	13,355	1,309,096 00
By lapse.....	432,055	46,448,119 00
By change.....	11	20,584 00
Not taken.....	41	46,900 00

## BUSINESS IN MINNESOTA IN 1888.

Issued during 1888.....	4,806	\$426,048 00
Ceased to be in force during 1888.....	3,058	252,546 00
In force Dec. 31, 1888.....	1,748	173,502 00
Cash received for premiums.....		\$3,824 65
Losses paid in 1888.....		\$120 50
Losses incurred in 1888.....		120 50

# STATE MUTUAL LIFE ASSURANCE COMPANY OF WORCESTER, MASS.

(Organized 1844.)

A. G. BULLOCK, *President.*H. M. WITTER, *Secretary.*

Attorney in Minnesota, CHARLES SHANDREW, St. Paul.

## ASSETS DEC. 31, 1888.

Loans on real estate.....	\$813,484 00
Loans on collateral security.....	138,300 00
Premium notes, or loans to policy holders.....	340,395 11
Value of real estate owned.....	86,000 00
Market value of bonds and stocks owned.....	3,094,723 84
Cash on hand and in bank.....	109,986 13
Loans to corporations.....	221,725 00
Accrued interests and rents.....	53,000 00
All other assets.....	209,371 16
Total admitted assets.....	<u>\$5,066,985 24</u>

## LIABILITIES.

Net present value of outstanding policies, combined experience table of mortality with 4 per cent interest.....	\$4,267,439 73
Total gross policy claims.....	<u>6,500 00</u>
Total liabilities.....	<u>\$4,273,939 73</u>
Surplus over liabilities.....	<u>\$793,045 51</u>

## INCOME IN 1888.

Total premium income.....	\$1,033,523 31
From interests and dividends.....	223,252 21
From rents and all other sources.....	<u>908 70</u>
Total income.....	<u>\$1,257,684 22</u>
Total expenditures.....	<u>836,097 60</u>
Excess of income over expenditures.....	<u>\$421,586 62</u>

## EXPENDITURES IN 1888.

Losses and matured endowments.....	\$384,074 52
Dividends and other disbursements to policy holders.....	<u>235,383 08</u>
Total payments to policy holders.....	<u>\$619,457 60</u>
Management expenses.....	<u>216,640 00</u>
Total disbursements.....	<u>\$836,097 60</u>

## MISCELLANEOUS.

	No.	Amt.
Policies in force at close of 1887.....	8,797	\$23,387,840 00
Policies in force at close of 1888.....	9,826	26,665,185 00
Net increase.....	1,029	\$3,277,345 00
Issued in 1888.....	1,768	5,102,000 00
Terminated in 1888.....	740	1,874,857 00
By death.....	150	321,059 00
By maturity.....	33	55,000 00
By expiration.....	31	76,500 00
By surrender.....	215	534,249 00
By lapse.....	162	323,500 00
By change.....		172,549 00
Not taken.....	149	392,000 00

## BUSINESS IN MINNESOTA IN 1888.

In force at end of 1887.....	273	\$689,300 00
Issued during 1888.....	26	63,000 00
Ceased to be in force during 1888.....	17	48,204 00
In force Dec. 31, 1888.....	282	704,096 00
Cash received for premiums.....		\$19,874 86
Losses paid in 1888.....		\$12,500 00
Losses incurred in 1888.....		12,500 00

TRAVELERS INSURANCE COMPANY OF HARTFORD,  
CONN.

(Organized in 1863.)

JAMES G. BATTERSON, *President.*RODNEY DENNIS, *Secretary.*

Attorney in Minnesota, S. S. EATON, St. Paul.

CAPITAL STOCK, \$600,000.

## ASSETS DEC. 31, 1888.

Loans on real estate.....	\$3,425,476 50
Loans on collateral security.....	239,415 00
Premium notes, or loans to policy holders.....	164,255 00
Value of real estate owned.....	1,551,479 84
Market value of bonds and stocks owned.....	4,975,541 22
Cash on hand and in bank.....	770,919 27
Accrued interests and rents.....	72,360 46
Net deferred and outstanding premiums.....	233,373 42
Total admitted assets.....	\$11,432,820 71
Deduct for depreciation.....	1,050,038 79
Total.....	\$10,382,781 92

## LIABILITIES.

Net present value of outstanding policies, American experience table of mortality with $4\frac{1}{2}$ per cent interest.....	\$6,849,276 00
Reserve—accident.....	741,416 51
Total gross policy claims.....	155,829 00
All other liabilities.....	10,000 00
Total liabilities.....	\$7,756,521 51
Surplus over liabilities.....	\$2,626,260 41



## ANNUAL REPORT

## INCOME IN 1888.

Total premium income.....	\$3,401,466 35
From interest and dividends.....	528,155 78
From rents and all other sources.....	57,777 86
Total income.....	\$3,987,399 99
Excess of income over expenditures.....	\$827,579 64

## EXPENDITURES IN 1888.

Losses and matured endowments.....	\$1,561,240 66
Dividends and other disbursements to policy holders.....	78,807 53
Total payments to policy holders.....	\$1,640,048 19
Dividends to stockholders .....	96,000 00
Management expenses.....	1,423,772 16
Total disbursements.....	\$3,159,820 35

## MISCELLANEOUS.

	No.	Amt.
Policies in force at close of 1887 — accident.....	77,939	\$228,409,232 00
Policies in force at close of 1887 — life.....	19,840	37,739,893 00
Policies in force at close of 1888 — accident.....	77,437	241,603,668 00
Policies in force at close of 1888 — life.....	21,117	41,138,361 00
Issued in 1888 — accident.....	111,404	304,049,375 00
Issued in 1888 — life.....	3,146	7,562,715 00
Terminated in 1888 — accident.....	111,906	290,854,939 00
Terminated in 1888 — life.....	1,900	4,258,690 00
By death — accident.....	256	535,850 00
By death — life.....	208	438,748 00
By maturity — life.....	49	57,421 00
By expiration — accident.....	111,650	290,319,089 00
By expiration — life.....	3	12,000 00
By surrender — life.....	173	269,716 00
By lapse — life.....	948	2,094,250 00
By change — life.....	203	602,763 00
Not taken — life.....	316	783,792 00

## BUSINESS IN MINNESOTA IN 1888.

In force at end of 1887 — accident.....	1,762	\$4,816,615 00
In force at end of 1887 — life.....	262	597,066 00
Issued during 1888 — accident.....	2,930	7,855,050 00
Issued during 1888 — life.....	32	94,075 00
Ceased to be in force during 1888 — accident.....	2,641	6,387,625 00
Ceased to be in force during 1888 — life.....	27	98,275 00
In force Dec. 31, 1888 — accident.....	2,051	6,284,040 00
In force Dec. 31, 1888 — life.....	267	592,866 00
Cash received for premiums — accident.....		\$63,289 82
Cash received for premiums — life.....		12,556 48
Losses paid in 1888 — accident.....		\$24,108 60
Losses paid in 1888 — life.....		2,325 00
Losses incurred in 1888 — accident.....		16,103 60
Losses incurred in 1888 — life.....		1,325 00

# UNION CENTRAL LIFE INSURANCE COMPANY OF CINCINNATI, OHIO.

(Organized in 1867.)

JOHN DAVIS, *President.*E. P. MARSHALL, *Secretary.*

Attorney in Minnesota, C. T. THOMPSON, Minneapolis.

CAPITAL STOCK, \$100,000.

## ASSETS DEC. 31, 1888.

Loans on real estate.....	\$3,033,059 65
Premium notes, or loans to policy holders.....	751,937 85
Value of real estate owned.....	193,215 84
Market value of bonds and stocks owned.....	12,825 00
Cash on hand and in bank.....	175,128 77
Accrued interests and rents.....	74,746 88
Net deferred and outstanding premiums.....	255,957 29
All other assets .....	24,127 16
<b>Total admitted assets.....</b>	<b>\$4,520,997 84</b>
<b>Items not admitted.....</b>	<b>\$56,495 74</b>

## LIABILITIES.

Net present value of outstanding policies, American experience table of mortality with $4\frac{1}{2}$ per cent interest.....	\$3,674,164 00
Total gross policy claims.....	33,925 00
All other liabilities.....	170,489 48
<b>Total liabilities.....</b>	<b>\$3,878,578 48</b>
<b>Surplus over liabilities.....</b>	<b>\$642,419 36</b>

## INCOME IN 1888.

Total premium income.....	\$1,473,931 19
From interest and dividends.....	233,137 68
From rents and all other sources.....	10,932 89
<b>Total income.....</b>	<b>\$1,718,001 76</b>
<b>Excess of income over expenditures.....</b>	<b>\$710,012 87</b>

## EXPENDITURES IN 1888.

Losses and matured endowments.....	\$208,090 41
Dividends and other disbursements to policy holders.....	249,849 63
<b>Total payments to policy holders.....</b>	<b>\$457,940 04</b>
Dividends to stockholders.....	10,000 00
Management expenses.....	540,248 85
<b>Total disbursements.....</b>	<b>\$1,008,188 89</b>

## MISCELLANEOUS.

	No.	Amt.
Policies in force at close of 1887.....	16,626	\$27,724,533 00
Policies in force at close of 1888.....	20,110	33,870,922 00
Net increase.....	3,484	\$6,146,389 00
Issued in 1888.....	7,937	14,842,046 00
Terminated in 1888.....	4,582	8,905,860 00
By death.....	127	196,830 00
By maturity.....	17	21,964 00
By expiration.....	94	135,800 00
By surrender.....	162	344,993 00
By lapse.....	2,458	4,236,236 00
By change.....	224	555,500 00
Not taken.....	1,500	3,413,368 00

## BUSINESS IN MINNESOTA IN 1888.

In force at end of 1887.....	149	\$266,750 00
Issued during 1888.....	114	186,590 00
Ceased to be in force during 1888.....	56	114,250 00
In force Dec. 31, 1888.....	207	339,090 00
Cash received for premiums.....		\$10,184 63
Losses paid in 1888.....		\$1,000 00
Losses incurred in 1888.....		2,000 00

## UNION MUTUAL LIFE INSURANCE COMPANY OF PORTLAND, ME.

(Organized July 17, 1848.)

JOHN E. DE WITT, *President.*ARTHUR L. BATES, *Secretary.*

Attorney in Minnesota, WALTER MANN, St. Paul.

## ASSETS DEC. 31, 1888.

Loans on real estate .....	\$1,156,678 80
Loans on collateral security .....	231,661 01
Premium notes, or loans to policy holders.....	496,249 84
Value of real estate owned.....	1,288,976 92
Market value of bonds and stocks owned.....	2,385,565 06
Cash on hand and in bank.....	183,003 40
Accrued interests and rents .....	67,344 59
Net deferred and outstanding premiums.....	108,533 98
All other assets.....	34,180 16
Total admitted assets.....	\$6,002,193 76

## ITEMS NOT ADMITTED.

Ledger balance, \$1,679.08; bills receivable, \$1,694.07; total.....	\$3,373 15
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## LIABILITIES.

Net present value of outstanding policies, American experience table of mortality with $4\frac{1}{2}$ per cent interest.....	\$5,325,106 00
Total gross policy claims.....	67,940 96
All other liabilities.....	8,138 40
Total liabilities.....	<u>\$5,401,185 36</u>
Surplus over liabilities.....	\$601,008 40

## INCOME IN 1888.

Total premium income.....	\$711,888 19
From interest and dividends.....	224,311 10
From rents and all other sources.....	27,320 48
Total income.....	<u>\$963,519 77</u>
Excess of expenditures over income.....	\$28,119 27

## EXPENDITURES IN 1888.

Losses and matured endowments.....	\$591,601 48
Dividends and other disbursements to policy holders.....	98,550 08
Total payments to policy holders.....	<u>\$690,151 56</u>
Management expenses.....	301,487 48
Total disbursements.....	<u>\$991,639 04</u>

## MISCELLANEOUS.

	No.	Amt.
Policies in force at close of 1887.....	14,478	\$25,794,195 00
Policies in force at close of 1888.....	14,728	26,395,600 00
Net increase.....	250	\$601,405 00
Issued in 1888.....	2,411	4,886,597 00
Terminated in 1888.....	2,214	4,422,201 00
By death.....	204	435,915 00
By maturity.....	140	143,545 00
By expiration.....	243	497,500 00
By surrender.....	45	172,092 00
By lapse.....	889	1,634,180 00
By change.....	2	3,500 00
Not taken.....	691	1,462,400 00

## BUSINESS IN MINNESOTA IN 1888.

In force at end of 1887.....	300	\$768,111 00
Issued during 1888.....	38	146,797 00
Ceased to be in force during 1888.....	35	85,516 00
In force Dec. 31, 1888.....	303	829,392 00
Cash received for premiums.....		\$21,555 24
Losses paid in 1888.....		\$1,045 75
Losses incurred in 1888.....		2,045 75

# UNITED STATES LIFE INSURANCE COMPANY OF NEW YORK CITY, N. Y.

(Organized in 1850.)

GEORGE H. BURFORD, *President.*C. P. FRALEIGH, *Secretary.*

Attorney in Minnesota, L. P. VAN NORMAN, Minneapolis.

CAPITAL STOCK, \$440,000.

## ASSETS DEC. 31, 1888.

Loans on real estate .....	\$3, 120, 150 00
Loans on collateral security.....	35, 711 89
Premium notes, or loans to policy holders.....	154, 036 02
Value of real estate owned.....	63, 380 53
Market value of bonds and stocks owned.....	2, 114, 854 02
Cash on hand and in bank.....	54, 828 05
Accrued interests and rents.....	66, 506 68
Net deferred and outstanding premiums.....	166, 739 34
All other assets.....	157, 163 41
Total admitted assets.....	\$5, 933, 369 94

## ITEMS NOT ADMITTED.

Bills receivable, \$13,574.57; agents' ledger balance, \$29,305.31; total.....	\$42, 879 88
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## LIABILITIES.

Net present value of outstanding policies, American experience table of mortality with $4\frac{1}{4}$ per cent interest.....	\$4, 929, 570 00
Total gross policy claims.....	21, 450 00
All other liabilities.....	9, 125 14
Total liabilities.....	\$4, 960, 145 14
Surplus over liabilities.....	\$973, 224 80

## INCOME IN 1888.

Total premium income.....	\$819, 541 72
From interest and dividends.....	265, 033 22
From rents and other sources.....	2, 622 95
Total income.....	\$1, 087, 197 89
Excess of income over expenditures.....	\$183, 310 22

## EXPENDITURES IN 1888.

Losses and matured endowments.....	\$486, 171, 46
Dividends and other disbursements to policy holders.....	41, 242 52
Total payments to policy holders.....	\$527, 413 98
Dividends to stockholders.....	30, 800 00
Management expenses.....	345, 673 69
Total disbursements.....	\$903, 887 67



## MISCELLANEOUS.

	No.	Amt.
Policies in force at close of 1887.....	11,735	\$23,471,829 00
Policies in force at close of 1888.....	12,566	25,752,267 00
Net increase.....	831	\$2,280,438 00
Issued in 1888.....	2,558	6,335,676 00
Terminated in 1888.....	1,822	4,294,738 00
By death.....	211	425,714 00
By maturity.....	42	81,706 00
By expiration.....	51	192,000 00
By surrender.....	55	103,463 00
By lapse.....	972	2,123,855 00
By change.....	37	219,000 00
Not taken.....	454	1,149,000 00

## BUSINESS IN MINNESOTA IN 1888.

In force at end of 1887.....	173	\$353,750 00
Issued during 1888.....	71	210,150 00
Ceased to be in force during 1888.....	28	73,780 00
In force Dec. 31, 1888.....	216	490,120 00
Cash received for premiums.....		\$11,843 40

## WASHINGTON LIFE INSURANCE COMPANY OF NEW YORK CITY.

(Organized in 1860.)

W. A. BREWER, JR., *President.*WM. HAXTUN, *Secretary.*

Attorney in Minnesota, J. A. SABIN, St. Paul.

## ASSETS DEC. 31, 1888.

Loans on real estate.....	\$7,351,555 27
Premium notes, or loans to policy holders.....	226,225 61
Value of real estate owned.....	398,063 72
Market value of bonds and stocks owned.....	659,703 42
Cash on hand and in bank.....	234,473 29
Accrued interests and rents.....	90,852 36
Net deferred and outstanding premiums.....	256,040 78
All other assets.....	184,421 58
Total admitted assets.....	\$9,401,336 03

## ITEMS NOT ADMITTED.

Ledger balances.....	\$53,931 07
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## LIABILITIES.

Net present value of outstanding policies, American experience table of mortality with $4\frac{1}{2}$ per cent interest.....	\$8,403,045 00
Total gross policy claims .....	15,872 86
All other liabilities.....	10,623 85
Total liabilities.....	<u>\$8,429,541 71</u>
Surplus over liabilities .....	\$971,794 32

## INCOME IN 1888.

Total premium income.....	\$1,831,526 93
From interest and dividends.....	429,761 02
From rents and all other sources .....	21,716 84
Total income.....	<u>\$2,283,004 79</u>
Excess of income over expenditures.....	\$536,591 99

## EXPENDITURES IN 1888.

Losses and matured endowments.....	\$793,113 73
Dividends and other disbursements to policy holders.....	426,470 62
Total payments to policy holders.....	<u>\$1,219,584 35</u>
Dividends to stockholders .....	8,571 50
Management expenses.....	518,256 95
Total disbursements .....	<u>\$1,746,412 80</u>

## MISCELLANEOUS.

	No.	Amt.
Policies in force at close of 1887.....	17,761	\$39,506,527 00
Policies in force at close of 1888.....	19,273	42,768,034 00
Net increase.....	1,512	\$3,261,507 00
Issued in 1888.....	4,907	8,755,817 00
Terminated in 1888.....	2,809	6,290,104 00
By death.....	208	598,514 00
By maturity .....	108	144,263 00
By discount.....	24	47,944 00
By surrender.....	434	1,119,030 00
By lapse.....	1,230	2,454,455 00
Not taken.....	805	1,925,898 00

## BUSINESS IN MINNESOTA IN 1888.

In force at end of 1887.....	747	\$1,282,196 00
Issued during 1888.....	124	183,760 00
Ceased to be in force during 1888.....	157	308,936 00
In force Dec. 31, 1888.....	714	1,157,020 00
Cash received for premiums .....		\$39,156 54
Losses paid in 1888.....		\$18,762 00
Losses incurred in 1888 .....		18,762 00

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PART III.

ASSESSMENT LIFE AND CASUALTY INSURANCE.

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# INSURANCE COMMISSIONER'S REPORT.

## PART III.

### ASSESSMENT LIFE AND CASUALTY INSURANCE.

There are at present fifty-nine life, endowment and casualty companies operating in this state on the co-operative assessment plan. Of this number fourteen are companies of this state and forty-five of other states.

The companies having withdrawn from the state or retired from business since the date of the last report are as follows:

Citizens Mutual (reinsured in the Fidelity Mutual, Philadelphia).....	Minneapolis
Commercial Travelers Mutual Indemnity and Relief Association.....	Minneapolis.
Co-operative Indemnity Company.....	Minneapolis.
Duluth Life Society (in hands of a receiver) .....	Duluth.
Life Association of Minnesota.....	Minneapolis.
Minnehaha Life Insurance Company (reinsured in Minnesota Mutual Life Insurance Association).....	Minneapolis.
Mutual Benefit Life Association.....	New York City.
Mutual Guarantee Endowment Association.....	St. Paul.
National Mutual Accident Association.....	Bloomington, Ill.
Northwestern Safety Fund Life Society.....	Chicago, Ill.
Odd Fellows National Benefit Association.....	Minneapolis.
Preferred Accident Pension Company .....	Minneapolis.
St. Paul Life Association (reinsured in National Maturity Association).....	St. Paul.
United Life and Accident Insurance Association.....	New York City.

The companies licensed since the last report are:

American Legion of Honor .....	Boston, Mass.
Home Endowment Association .....	Minneapolis.
Keystone Mutual Benefit Association .....	Allentown, Pa.
Masonic Mutual Life Association .....	Cleveland, Ohio.
Masons Union Life Association.....	Indianapolis, Ind.
National Benevolent Association.....	Minneapolis.
National Life Association .....	Hartford, Conn.
Worlds Industrial Accident Association.....	Dubuque, Iowa.
North American Mutual Benefit Association.....	Chicago, Ill.
*North American Accident Association .....	Chicago, Ill.
Masons Fraternal Accident Association.....	Westfield, Mass.
Travelers Preferred Accident Association.....	Chicago, Ill.
United States Birth Endowment Association.....	Minneapolis.
Winona Mutual Benefit Association.....	Winona, Minn.
Northwestern Mutual Indemnity Association.....	Willmar, Minn.

\* Refused admittance 1889.

The tables and statements which follow show the business transacted by such companies in this state, as compiled from their reports. The amount insured does not appear, as it is not definitely known by the officers of the companies. While many—perhaps the most of them—are worthy of confidence, it is due to the character of the gentlemen who manage them rather than to any obligations or restrictions placed upon them by the law of the state, which simply provides a few rules to be complied with as preliminary to their incorporation, after which the commissioner has merely to issue the license. The commissioner has no discretion in the matter, his duties being purely ministerial.

The present imperfect law relating to such companies was passed during the session of 1885, during its closing hours, and it is evident that it did not receive the careful attention it should have had, and it is to be hoped that by the time the next legislature convenes a bill may be prepared which, by its provisions, will weed out the unworthy and strengthen the deserving companies.



## TABLE

*Showing Assets, Liabilities, Income and Expenditures of Co-operative  
Transacting Business in Minnesota*

ASSOCIATIONS OR SOCIETIES.	LOCATION.	ASSETS.		
		Cash or In- vested Assets.	Contingent Assets.	Total Assets.
American Legion of Honor.....	Boston, Mass.....	\$270,951.86		\$270,951.86
Bankers Life Association.....	St. Paul, Minn.....	192,859.13	\$55,366.21	248,225.34
Bankers Life Association.....	Des Moines, Ia.....	478,361.32	32,670.00	511,031.32
Bay State Beneficiary Society.....	Westfield, Mass.....	106,715.44	81,000.00	187,715.44
Chicago Guaranty Fund Life Society...	Chicago, Ill.....	56,813.48	13,918.21	70,731.69
Childrens Endowment Society.....	Minneapolis, Minn.....	2,535.93		2,535.93
Citizens Mutual Life Insurance Society.	New York City.....	18,872.27	25,173.92	44,046.19
Connecticut Indemnity Association.....	Waterbury, Conn.....	65,533.35	2,982.71	68,516.06
Covenant Mutual Benefit Association...	Galesburg, Ill.....	381,815.16	250,000.00	631,815.16
Educational Endowment Association...	Minneapolis, Minn.....	59,886.81	2,059.00	61,945.81
Equitable Accident Association.....	Binghamton, N. Y.....	6,646.22	70,000.00	76,646.22
Equitable Aid Union.....	Columbus, Pa.....	24,247.40	71,003.92	95,251.32
Equitable Mu. Life & Endowment Ass'n	Waterloo, Ia.....	24,632.10	8,950.00	33,582.10
Fidelity Mutual Life Association.....	Philadelphia, Pa.....	172,230.89	537,473.00	709,703.89
Home Benefit Association.....	New York City.....	48,054.75	105,143.06	153,197.81
Home Endowment Association.....	Minneapolis, Minn.....	3,183.32		3,183.32
Iowa Mutual Benefit Association.....	Toledo, Ia.....	21,187.94	19,315.00	40,502.94
Keystone Mutual Benefit Association...	Allentown, Pa.....	19,479.91	5,000.00	24,479.91
K. Tems. & Masons Life Indemnity Co.	Chicago, Ill.....	57,344.18		57,344.18
Life and Reserve Association.....	Buffalo, N. Y.....	61,847.74	37,957.02	99,804.76
Massachusetts Benefit Association.....	Boston, Mass.....	299,598.48	209,258.00	508,856.48
Manufacturers Acid't & Indemnity Co.	Geneva, N. Y.....	57,904.33		57,904.33
Masons Fraternal Accident Association.	Westfield, Mass.....	6,010.78	3,355.40	9,366.18
Masonic Mutual Life Association.....	Cleveland, Ohio.....	16,921.71	7,200.00	24,121.71
Masons Union Life Association.....	Indianapolis, Ind.....	2,675.51		2,675.51
Minnesota Mutual Benefit Association...	Minneapolis, Minn.....	7,373.63	7,300.00	14,673.63
Minnesota Scandinavian Relief Ass'n...	Red Wing, Minn.....	18,027.65	9,200.00	27,227.65
Modern Woodmen of America.....	Fulton, Ill.....	9,544.77		9,544.77
Mutual Reserve Fund Life Association.	New York City.....	1,970,700.19	771,591.21	2,742,291.40
National Accident Society.....	New York City.....	1,996.68	4,406.50	6,403.18
National Benevolent Association.....	Minneapolis, Minn.....	904.50		904.50
National Life Association.....	Hartford, Conn.....	255,310.33	4,734.00	255,310.33
National Life and Maturity Association	Washington, D. C.....	168,587.73	16,457.40	185,045.13
New England Mutual Accident Ass'n...	Boston, Mass.....	27,916.42	15,926.34	43,842.76
New England Mutual Aid Society.....	Boston, Mass.....	26,165.26	13,348.54	39,513.80
New England Relief Association.....	Boston, Mass.....	26,672.60		26,672.60
North American Mutual Benefit Ass'n...	Chicago, Ill.....	18,234.26	50,835.59	69,069.85
Northwestern Aid Association.....	Minneapolis, Minn.....	30,117.68	13,283.16	43,400.84
N. W. Endowment & Legacy Ass'n.....	Red Wing, Minn.....	37,363.48	7,394.00	44,757.48
Northwestern Guaranty Life Ins. Co...	St. Paul Minn.....	6,188.31		6,188.31
Northern Legion of Honor.....	Minneapolis Minn.....	2,582.30	1,000.00	3,582.30
Northwestern Masonic Aid Association	Chicago, Ill.....	278,064.66	281,000.00	559,064.66
Northwestern Mutual Endowment Soc'y	Minneapolis, Minn.....	2,272.10	16,786.25	19,058.35
Peoples Mutual Benefit Society.....	Elkhart, Ind.....	10,022.12	64,476.00	74,498.12
Prairie State Beneficiary Society.....	Peoria, Ill.....	2,836.32	2,250.00	5,086.32
Provident Fund Society.....	New York City.....	3,042.66	13,698.00	16,740.66
Scandinavian Mutual Aid Association...	Galesburg, Ill.....	15,832.56	25,903.90	41,736.46
Southern Tier Masonic Relief Ass'n...	Elmira, N. Y.....	9,303.67	55,517.90	64,821.57
Southwestern Mutual Benefit Ass'n...	Marshalltown, Ia...	29,294.62	2,420.00	31,714.62
Travelers Preferred Accident Ass'n.....	Chicago, Ill.....	776.70		776.70

NO. 1.

*Life, Endowment and Casualty Insurance Associations or Societies  
for the Year Ending Dec. 31, 1888.*

TOTAL LIABILITIES.	INCOME.			EXPENDITURES.		
	Paid by Members.	Other Receipts.	Total Receipts.	Paid for Claims and to Members.	Paid for Expenses.	Total Dis- bursements.
\$789.21	\$2,596,406.00	\$22,152.29	\$2,618,558.29	\$2,500,492.00	\$45,763.14	\$2,546,255.14
20,000.00	117,222.31	21,924.89	139,147.20	92,937.00	31,647.97	124,584.97
2,139.21	196,171.39	99,343.24	295,514.63	118,846.00	59,181.67	178,027.67
81,000.00	379,230.55	3,832.76	383,063.31	296,500.00	64,235.65	360,735.65
4,446.86	63,618.12	21,665.27	85,283.39	36,000.00	26,242.79	62,242.79
.....	5,403.50	14.56	5,418.06	.....	2,882.13	2,882.13
18,371.12	82,031.81	2,311.99	84,343.80	52,883.12	28,246.52	81,129.64
.....	39,040.43	15,848.40	54,888.83	12,457.52	46,443.44	58,900.96
265,656.94	853,838.98	26,354.63	880,193.61	732,461.93	81,271.46	813,733.39
584.50	53,560.00	5,944.92	59,504.92	42,669.24	17,710.14	60,379.38
68,187.33	146,165.81	.....	146,165.81	71,827.78	74,775.49	146,603.27
79,978.92	408,614.72	5,379.89	413,994.61	391,399.50	19,590.23	410,989.73
9,643.21	70,386.42	4,322.55	74,708.97	54,575.00	18,277.35	72,852.35
66,856.31	323,792.04	34,516.34	358,308.38	126,409.02	170,853.20	297,263.22
91,000.00	145,432.30	1,986.29	147,418.59	102,445.18	44,652.77	147,097.95
.....	7,134.15	49.36	7,183.51	1,036.25	3,769.39	4,805.64
1,333.80	46,056.36	5,570.53	51,626.89	20,663.15	20,558.31	41,221.46
20,772.24	48,102.58	2,912.58	51,015.16	30,506.00	13,821.88	44,327.88
2,000.00	181,264.05	1,746.16	183,010.21	103,970.30	53,635.86	157,606.16
26,985.21	109,239.40	6,678.11	115,917.51	49,315.00	37,966.54	87,281.54
30,147.91	.....	.....	.....	.....	.....	.....
209,258.00	780,424.59	13,251.16	793,675.75	603,100.62	104,867.47	707,968.09
2,831.02	70,826.05	325.73	71,151.78	22,557.01	97,778.59	120,335.60
253.00	39,778.00	.....	39,778.00	4,246.22	29,521.00	33,767.22
5,000.00	93,440.85	443.89	93,889.74	76,129.00	11,126.45	87,255.45
.....	2,795.05	103.54	2,898.59	.....	1,688.70	1,688.70
10,010.00	15,868.50	2,990.00	18,858.50	7,979.88	8,440.99	16,420.87
16,500.00	49,388.85	460.62	49,849.47	39,028.00	7,633.41	46,661.41
.....	188,860.99	583.82	189,444.81	167,000.00	15,386.80	182,386.80
1,213,843.01	2,621,728.09	90,085.99	2,711,814.08	1,585,071.17	645,189.59	2,230,260.76
14,816.05	46,970.03	.....	46,970.03	14,747.63	32,473.72	47,221.35
4,734.00	29,008.90	3,409.11	32,418.01	6,987.20	25,568.11	32,555.31
.....	35,786.04	3,983.53	39,769.57	6,233.27	11,681.26	17,914.53
8,000.00	201,695.66	11,839.42	213,535.08	294,635.42	53,368.76	348,004.18
21,932.21	119,604.75	410.25	120,015.00	42,166.98	69,557.92	111,724.90
20,042.84	124,746.74	675.56	125,422.30	130,494.00	10,068.89	140,562.89
23,000.00	133,260.62	880.00	134,140.62	113,000.00	16,631.97	129,631.97
118,700.00	74,387.18	.....	74,387.18	63,703.59	7,489.94	71,193.53
19,876.41	39,546.86	7,125.38	46,672.24	14,422.55	23,942.69	38,365.24
6,355.35	54,083.55	1,963.86	56,047.41	28,161.30	12,964.08	41,125.38
1,544.66	10,633.56	686.36	11,319.92	7,000.00	5,653.12	12,653.12
1,726.41	4,678.23	674.98	5,853.21	1,952.67	1,866.14	3,818.81
380,809.52	1,321,349.73	7,315.28	1,328,665.01	997,940.73	244,109.25	1,242,049.98
11,875.00	87,974.75	189.95	88,164.70	70,382.01	22,625.34	93,007.35
67,100.00	367,941.78	45.60	367,987.38	287,051.72	79,883.58	366,935.30
829.65	8,083.63	1,710.15	9,793.78	2,006.00	5,763.53	7,769.53
4,826.07	73,480.08	.....	73,480.08	12,686.89	60,676.38	73,363.27
25,474.69	74,618.17	365.70	74,983.87	55,709.00	13,858.58	69,567.58
47,000.00	135,588.69	543.00	136,131.69	128,035.32	8,750.26	136,785.58
6,827.40	42,262.42	1,848.21	44,110.63	18,893.41	16,567.18	35,460.59
3,902.00	19,543.50	4,096.25	23,639.75	14,593.80	7,789.25	22,383.05

TABLE NO. 1

ASSOCIATIONS OR SOCIETIES.	LOCATION.	ASSETS.		
		Cash or In-vested Assets.	Contingent Assets.	Total Assets.
U. B. Mutual Aid Society of Pa.....	Lebanon, Pa.....	\$146,000.87	\$92,000.00	\$238,000.87
United States Accident Association.....	New York City.....	102,853.43	120,599.30	223,452.73
Union Mutual Accident Association.....	Chicago, Ill .....	8,413.19	11,900.48	20,313.67
Wes'n Union Mu. Life Society of the U.S.	Detroit, Mich.....	6,804.86	25,460.41	32,265.27
	Detroit, Mich.....	31,898.25	127,812.64	159,710.89
Worlds Industrial Accident Ass'n.....	Dubuque, Ia .....	625.99	1,171.07	1,797.06
Totals.....		\$5,712,037.80	\$3,294,298.14	\$9,006,335.94

— CONTINUED.

TOTAL LIABILITIES.	INCOME.			EXPENDITURES.		
	Paid by Members.	Other Receipts.	Total Receipts.	Paid for Claims and to Members.	Paid for Expenses.	Total Dis- bursements.
\$95,625.00	\$485,293.70	\$5,554.39	\$490,848.09	\$422,373.00	\$70,714.73	\$493,087.73
133,850.26	873,933.45	18.25	873,951.70	346,689.77	453,250.84	799,940.61
14,367.48	144,962.66	.....	144,962.66	40,552.06	105,411.65	145,963.71
27,500.00	69,678.67	.....	69,678.67	46,380.41	19,978.53	66,358.94
122,500.00	327,306.39	237.16	327,543.55	255,967.83	76,386.67	332,354.50
1,317.37	14,810.28	.....	14,810.28	4,081.20	10,523.95	14,605.15
\$3,370,450.17	\$14,657,051.91	\$444,376.90	\$15,101,428.81	\$10,769,353.65	\$3,250,715.25	\$14,020,068.90

TABLE II.

*Showing a Summary of the General Business and of the Business in the State of Minnesota of each Co-operative, Life, Endowment or Casualty Association or Society Transacting Business in the State Dec. 31, 1888.*

COMPANIES.	GENERAL BUSINESS.					BUSINESS IN MINNESOTA.					
	No. Certificates in Force Dec. 31, 1887.	No. Written during 1888.	No. Terminated during 1888.	No. in Force Dec. 31, 1888.		No. Certificates in Force Dec. 31, 1887.	No. Written during 1888.	No. Terminated during 1888.	No. in Force Dec. 31, 1888.	Receipts in 1888.	Amount of Losses Paid during 1888.
American Legion of Honor.....	62, 111	5, 969	5, 804	62, 276		184	15	14	185	\$10, 064.80	\$2, 000.00
Bankers Life Association (Minn.).....	4, 278	699	180	4, 797		3, 742	453	108	4, 087	100, 128.33	72, 000.00
Bankers Life Association (Iowa).....	8, 057	2, 719	777	9, 999		65	30	9	86	413.82	
Bay State Beneficiary Society.....	10, 394	2, 236	1, 618	11, 012		266	171	86	351	10, 958.00	3, 000.00
Chicago Guaranty Fund Life Society.....	1, 221	653	215	1, 659		7	33	9	31	1, 059.21	1, 000.00
Childrens Endowment Society.....	146	292	129	309		146	292	129	309	5, 418.06	
Citizens Mutual Life Insurance Society.....	2, 084	942	778	2, 248		5	41	9	37	797.62	
Connecticut Indemnity Association.....	1, 546	1, 098	659	1, 985			20	1	19	649.78	
Covenant Mutual Benefit Association.....	27, 282	4, 340	2, 615	29, 007		614	153	106	661		
Educational Endowment Association.....	2, 856	446	492	2, 810		2, 367	368	428	2, 307	59, 504.92	42, 507.00
Equitable Accident Association.....	12, 377	7, 757	12, 143	7, 991		290	53	115	228	2, 073.00	96.43
Equitable Aid Union.....	20, 755	3, 948	2, 085	22, 618		772	43	80	735	16, 280.47	15, 525.00
Equitable Mutual Life and Endowment Ass'n.....	2, 787	666	738	2, 655		2, 787	666	738	2, 655	2, 515.00	2, 500.00
Fidelity Mutual Life Association.....	6, 554	3, 586	1, 122	9, 018		14	1, 204	4	1, 214	4, 899.30	
Home Benefit Association.....	4, 573	1, 681	2, 501	3, 753		16	6	14	8	638.91	
Home Endowment Association.....	649	326	296	679		649	326	296	679	7, 183.51	1, 029.25
Iowa Mutual Benefit Association.....	1, 681	537	567	1, 651		99	30	47	82	2, 284.12	842.68
Keystone Mutual Benefit Association.....	2, 329	338	109	2, 558					16	25.50	
Knights Templars and Masons Life Indem'ty Co.....	3, 976	1, 940	656	5, 260		439	125	58	506	19, 262.95	5, 828.90
Life and Reserve Association.....	5, 585	3, 038	2, 426	6, 197		16	25	8	33		



Massachusetts Benefit Association .....	13,406	4,576	1,849	16,133	30	11	18	23	1,842.00	.....
Masons Fraternal Accident Association.....	204	4,802	1,159	4,847	.....	1,189	493	696	8,033.00	1,619.90
Manufacturers Accident Indemnity Co.....	3,801	6,160	3,282	6,679	45	69	59	55	.....	.....
Masonic Mutual Life Association.....	2,361	400	236	2,525	.....	.....	.....	.....	.....	.....
Masons Union Life Association.....	182	61	8	235	.....	19	2	17	315.00	.....
Minnesota Mutual Benefit Association.....	728	137	211	654	728	137	211	654	18,858.50	7,952.92
Minnesota Scandinavian Relief Association.....	2,654	473	415	2,712	2,565	446	383	2,628	48,618.42	39,000.00
Modern Workmen of America.....	15,286	11,812	2,118	24,980	354	351	113	592	3,498.90	7,000.00
Mutual Reserve Fund Life Association.....	42,625	1,224	7,056	36,793	574	93	122	545	37,304.52	12,000.00
National Accident Society.....	6,075	4,042	7,629	2,488	39	121	121	39	.....	.....
National Benevolent Association.....	929	3,156	221	3,864	238	663	65	896	9,665.50	3,826.00
National Life Association.....	919	3,363	149	1,133	.....	.....	.....	.....	.....	.....
National Life and Maturity Association.....	1,639	1,101	948	1,852	.....	168	19	149	1,479.35	.....
New England Mutual Accident Association.....	7,227	7,809	8,092	6,944	125	116	128	113	1,901.00	503.57
New England Mutual Aid Society.....	1,910	170	292	1,788	4	.....	1	3	90.70	.....
New England Relief Association.....	3,028	440	430	3,038	7	9	7	9	509.85	2,000.00
North American Mut. Benefit Ass'n, Chicago.....	2,678	2,195	414	4,459	.....	.....	.....	.....	.....	.....
Northwestern Aid Association.....	2,552	1,240	705	3,087	1,774	1,041	579	2,236	24,261.79	6,568.75
Northwestern Endowment and Legacy Ass'n.....	2,461	433	607	2,287	2,461	433	607	2,287	56,047.41	28,161.30
Northwestern Guaranty Life Insurance Co.....	354	221	83	354	492	221	83	492	11,319.92	7,000.00
Northern Legion of Honor.....	424	715	156	983	223	83	46	260	785.80	.....
Northwestern Masonic Aid Association.....	41,243	8,906	3,108	47,041	1,996	592	206	2,382	62,376.37	38,500.00
Northwestern Mutual Endowment Society.....	1,434	731	1,050	1,115	574	57	212	419	33,116.95	49,320.00
Peoples Mutual Benefit Society.....	9,457	3,785	2,679	10,563	909	225	199	935	25,234.87	12,609.25
Prairie State Beneficiary Society.....	371	1,080	470	981	.....	.....	.....	.....	.....	.....
Provident Fund Society.....	1,112	10,670	4,933	6,849	.....	211	67	144	.....	.....
Scandinavian Mutual Aid Association.....	4,132	1,653	266	5,031	690	126	67	749	11,076.25	14,500.00
Southern Tier Masonic Relief Association.....	2,291	362	334	2,519	39	12	10	51	1,860.86	5,000.00
Southwestern Mutual Benefit Association.....	2,462	608	591	2,479	64	11	22	63	829.48	.....
Travelers Preferred Accident Ass'n, Chicago.....	208	2,209	515	1,902	.....	39	1	38	313.00	.....
U. E. Mutual Aid Society of Pennsylvania.....	7,040	805	1,428	6,417	90	36	37	89	2,214.62	1,500.00
United States Accident Association.....	41,783	32,046	26,205	47,624	889	951	724	1,116	26,556.00	6,394.21
Union Mutual Accident Association.....	6,068	12,428	7,479	11,017	225	565	237	553	5,340.25	664.91
Union Mutual Life Association.....	2,385	178	417	2,146	.....	.....	.....	.....	.....	.....
West'n Union Mut. Life Soc'y of the United States	4,787	1,136	548	5,375	99	1	23	77	.....	.....
Worlds Industrial Accident Association.....	778	1,577	1,554	801	.....	617	395	222	4,183.00	215.23
Total.....	362,289	228,633	122,607	468,315	28,093	12,154	7,566	32,681	\$641,851.21	\$390,865.30

# ABSTRACTS OF STATEMENTS.

## AMERICAN LEGION OF HONOR.

Principal Office..... Boston, Mass.

(Organized March 11, 1878. Commenced business Dec. 18, 1878.)

ENOCH S. BROWN, *President.*

ADAM WARNOCK, *Secretary.*

Attorney for service of process in the State of Minnesota, INSURANCE COMMISSIONER.

Amount of net or invested assets Dec. 31, previous year..... \$198,648 71

### INCOME DURING 1888.

Membership fees (benefit certificates).....	\$12,583 50
Annual dues.....	13,001 00
Assessments—mortuary.....	2,570,821 50
Interest .....	10,518 09
Received from all other sources.....	11,634 20
Total income.....	\$2,618,558 29

### DISBURSEMENTS DURING 1888.

Losses and claims.....	\$2,448,000 00
Relief advanced to members.....	52,492 00
Salaries of officers.....	9,150 00
Salaries and other compensation of office employees.....	10,263 50
Rent, \$1,500.00; taxes, \$75.00; advertising and printing, \$13,318.12; total.....	14,893 12
All other items.....	11,456 52
Total disbursements.....	\$2,546,255 14

### INVESTED ASSETS.

Cash in office, \$2,465.99; in bank, \$268,485.87; total.....	\$270,951 86
Total invested assets.....	\$270,951 86

### LIABILITIES.

All other (not including contingent mortuary).....	\$789 21
Total actual liabilities.....	\$789 21

## INSURANCE COMMISSIONER.

729

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments called and not yet due.....	\$212,462 80
Mortuary assessments due and unpaid.....	10,752 12
Total due from members.....	<u>\$223,214 92</u>

## INCOME DURING 1888 IN MINNESOTA.

Membership fees (benefit certificates).....	\$12 25
Annual dues.....	195 00
Assessments.....	9,828 50
Received from all other sources.....	29 05
Total income.....	<u>\$10,064 80</u>

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Losses and claims.....	\$2,000 00
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## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNE-SOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887...	62,111	\$185,671,500	184	\$638,000
Policies or certificates written during the year 1888.....	5,969	16,802,000	15	32,000
Total.....	68,080	\$202,473,500	199	\$670,000
Deduct number ceased to be in force during 1888.....	5,804	18,722,000	14	54,000
Total policies in force Dec. 31, 1888.....	62,276	\$183,751,500	85	\$616,000
Losses and claims on policies or certificates incurred during the year 1888.....	818	\$2,448,000	1	\$2,000
Total .....	818	\$2,448,000	1	\$2,000
Losses and claims on policies or certificates paid during the year 1888.....	818	\$2,448,000	1	\$2,000
Policies or certificates terminated by death in 1888.....	818	\$2,448,000	1	\$2,000
Policies or certificates terminated by lapse in 1888.....	4,986	\$16,274,000	13	\$52,000

## BANKERS LIFE ASSOCIATION.

Principal Office.....St. Paul, Minn.

(Organized Aug. 6, 1880. Commenced business Aug. 6, 1880.

RUSSELL R. DORR, *President*.DOUGLAS PUTNAM, *Secretary*.

Attorney for service of process in the State of Minnesota, INSURANCE COMMISSIONER.

Amount of net or invested assets Dec. 31, previous year.....\$153,594 45

## INCOME DURING 1888.

Membership fees.....	\$12,291 88
Annual dues.....	27,653 04
Assessments (mortuary).....	76,277 39
Interest.....	5,207 06
Advances to agents repaid.....	27 38
Received from guaranty fund, trust notes.....	17,690 45
Total income.....	<u>\$139,147 20</u>

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$92,000 00
Guaranty deposits returned to beneficiaries of deceased members.....	937 00
Commissions and fees to agents.....	6,958 72
Commissions paid or allowed for collecting assessments.....	848 12
Salaries of managers and agents not paid by commissions.....	7,552 25
Salaries of officers, \$6,333.20; other compensation of officers, \$1,399.44; total.....	8,262 64
Salaries and other compensation of office employees.....	1,244 58
Medical examiners' fees paid direct by members or otherwise.....	2,056 00
Rent, \$1,030.50; taxes, \$223.00; advertising and printing, \$1,585.71; total.....	2,839 21
All other items.....	1,886 45
Total disbursements.....	<u>\$124,584 97</u>

## INVESTED ASSETS.

Market value of bonds and stocks.....	\$4,230 53
Guaranty trust fund.....	20,096 25
Stocks and bonds owned absolutely, market value.....	154,519 47
Cash in office, \$322.80; in bank, \$13,314.41; total.....	13,637 21
Interest due and accrued.....	20 00
Premiums not due.....	355 67
Total invested assets.....	<u>\$192,359 13</u>

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments called and not yet due.....	\$29,866 21
Mortuary assessments not yet called for losses paid.....	10,000 00
Losses resisted, \$6,000.00; reported, \$10,000.00; total.....	16,000 00
Total due from members.....	<u>\$55,866 21</u>
Deduct cost of collection.....	500 00
Net amount due from members.....	<u>\$55,366 21</u>

## INSURANCE COMMISSIONER.

731

## CONTINGENT MORTUARY LIABILITIES.

Losses in process of adjustment (number of claims, 1).....	\$2,000 00
Losses reported (number of claims, 6).....	12,000 00
Losses resisted (number of claims, 1).....	6,000 00
Total contingent liabilities.....	<u>\$20,000 00</u>

## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	\$8,229 61
Annual dues.....	19,768 72
Assessments.....	55,370 89
Interest.....	5,207 06
Guaranty trust fund notes.....	11,524 67
Received from all other sources.....	27 38
Total income during the year.....	<u>\$100,128 33</u>

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Losses and claims (number of claims, 36).....	\$72,000 00
Guaranty deposits returned to beneficiaries of deceased members.....	870 00
Commissions and fees to agents.....	11,096 06
Salaries and traveling expenses of agents.....	9,507 22
Medical examiners' fees.....	1,567 00
Rent.....	1,015 00
All other items.....	4,041 67
Total disbursements in Minnesota.....	<u>\$100,096 95</u>



## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNE-SOTA.	
	No.	Amount.	No.	Amount.
Policies or certificates in force Dec. 31, 1887...	4,278	\$2,000 each.	3,742	\$2,000 each.
Policies or certificates written during the year 1888.....	699		453	
Total.....	4,977		4,195	
Deduct number ceased to be in force during 1888.....	180		108	
Total policies in force Dec. 31, 1888.....	4,797	\$9,594,000	4,087	\$8,174,000
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....		\$18,225		\$10,225
Losses and claims on policies or certificates incurred during the year 1888.....		82,710		64,645
Total.....		\$100,935		\$74,870
Losses and claims on policies or certificates paid during the year 1888.....		\$92,937		\$72,870
Policies or certificates terminated by death in 1888.....	41		32	
Policies or certificates terminated by lapse in 1888.....	139		76	

## BANKERS LIFE ASSOCIATION.

Principal Office.....Des Moines, Iowa.

(Organized July 1, 1879. Commenced business Sept. 2, 1879.)

E. A. TEMPLE, *President.*T. L. PALMER, *Secretary.*

Attorney for service of process in the State of Minnesota, JAS. LOCKEY, St Paul, Minn.

Amount of net or invested assets Dec. 31, previous year.....\$354,467 82

## INCOME DURING 1888.

Membership fees.....	\$41,636 10
Annual dues.....	19,672 26
Assessments (mortuary).....	134,863 03
Guaranty fund.....	71,377 00
Interest.....	19,113 99
Advances to agents repaid.....	180 00
Received from all other sources.....	8,672 25
Total income.....	\$295,514 63

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$116,000 00
Guaranty fund returned to beneficiaries of deceased members.....	2,277 00
Advance payments returned on canceled certificates.....	569 00
Commissions and fees to agents.....	31,474 36
Commissions paid or allowed for collecting assessments.....	1,686 35
Salaries of managers and agents not paid by commissions.....	328 40
Salaries and other compensation of officers.....	12,333 98
Salaries and other compensation of office employees.....	4,464 91
Medical examiners' fees paid direct by members or otherwise.....	560 50
Rent, taxes, advertising and printing.....	3,434 90
Advanced to agents, to be repaid out of salaries or commissions.....	497 15
All other items.....	4,401 12
Total disbursements.....	\$178,027 67

## INVESTED ASSETS.

Loans secured by mortgages on real estate, first liens.....	\$276,620 00
Guaranty notes on members in good standing.....	152,620 20
Stocks and bonds owned absolutely, market value.....	8,000 00
Cash in office and in bank.....	34,714 58
Interest accrued.....	6,406 54
Total invested assets.....	\$478,361 32

## LIABILITIES.

Advance assessments.....	\$139 21
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## CONTINGENT MORTUARY ASSETS.

Mortuary assessments called and not yet due (estimated).....	\$33,000 00
Deduct cost of collection.....	\$330 00
Net amount due from members.....	\$32,670 00

## CONTINGENT MORTUARY LIABILITIES.

Losses reported (number of claims, 1)..... \$2,000 00

## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	\$249 80
Annual dues.....	41 46
Assessments.....	146 14
Interest.....	6 42
Total income during the year.....	\$443 82

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Commissions and fees to agents..... \$134 95

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887.....	8, 057	\$16, 114, 000	65	\$130, 000
Policies or certificates written during the year 1888.....	2, 719	5, 438, 000	30	60, 000
Total.....	10, 776	\$21, 552, 000	95	\$190, 000
Deduct number ceased to be in force during 1888.....	777	1, 554, 000	9	18, 000
Total policies in force Dec. 31, 1888.....	9, 999	\$19, 998, 000	86	\$172, 000
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	6	\$12, 000	.....	.....
Losses and claims on policies or certificates incurred during the year 1888.....	53	106, 000	.....	.....
Total.....	59	\$118, 000	.....	.....
Losses and claims on policies or certificates paid during the year 1888.....	58	\$116, 000	.....	.....
Policies or certificates terminated by death in 1888.....	53	\$106, 000	.....	.....
Policies or certificates terminated by lapse in 1888.....	712	\$1, 422, 000	9	\$18, 000

## BAY STATE BENEFICIARY ASSOCIATION.

Principal Office.....Westfield, Mass.

(Organized June 2, 1881. Commenced business June 2, 1881.)

JOHN R. REED, *President.*

ROBERT W. PARKS, *Secretary.*

Attorney for service of process in the State of Minnesota, C. E. BENDEN, Minneapolis, Minn.

Amount of net or invested assets Dec. 31, previous year.....\$84,387 78

## INCOME DURING 1888.

Membership fees .....	\$16,276 00
Annual dues.....	45,759 65
Assessments.....	317,194 90
Medical examiners' fees.....	2,200 00
Interest.....	1,632 76
Total income.....	\$383,063 31

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$296,500 00
Commissions and fees to agents.....	36,764 76
Salaries of officers.....	9,149 20
Salaries and other compensation of office employees.....	2,840 00
Medical examiners' fees paid direct by members or otherwise.....	5,164 60
Rent, taxes, advertising and printing.....	1,921 19
All other items.....	8,395 90
Total disbursements.....	\$360,735 65

## INVESTED ASSETS.

Stocks and bonds owned absolutely, market value.....	\$74,069 17
Cash in office and in bank .....	32,646 27
Total invested assets.....	\$106,715 44

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments called and not yet due.....	\$60,000 00
Mortuary assessments not yet called for losses unadjusted.....	21,000 00
Total due from members.....	\$81,000 00

## COTINGENT MORTUARY LIABILITIES.

Losses in process of adjustment (number of claims, 24).....	\$81,000 00
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## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	\$1,187 00
Annual dues.....	2,000 00
Assessments.....	7,600 00
Medical examiners' fees.....	171 00
Total income during the year.....	\$10,958 00

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Losses and claims (number of claims, 1).....	\$3,000 00
Commissions and fees to agents.....	1,687 00
Medical examiners' fees.....	171 00
Total disbursements in Minnesota.....	\$4,858 00

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887.....	10,394	\$32,710,000	266	\$798,000
Policies or certificates written during the year 1888.....	2,236	7,388,000	171	506,000
Total.....	12,630	\$40,098,000	437	\$1,304,000
Deduct number ceased to be in force during 1888.....	1,618	5,309,000	86	275,000
Total policies in force Dec. 31, 1888.....	11,012	\$34,789,000	351	\$1,029,000
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	31	107,500		
Losses and claims on policies or certificates incurred during the year 1888.....	89	270,000	1	\$3,000
Total.....	120	\$377,500	1	\$3,000
Losses and claims on policies or certificates paid during the year 1888.....	96	\$296,500	1	\$3,000
Policies or certificates terminated by death in 1888.....	89	\$270,000	1	\$3,000
Policies or certificates terminated by lapse in 1888.....	1,529	\$5,039,000	85	\$272,000



## CHICAGO GUARANTY FUND LIFE SOCIETY.

Principal Office..... Chicago, Ill.

(Organized Aug. 25, 1884. Commenced business Oct. 27, 1884.)

HENRY BOOTH, *President*.GEO. SHERWOOD, *Secretary*.

Attorney for service of process in the State of Minnesota, A. R. MCGILL, St. Paul.

Amount of net or invested assets Dec. 31, previous year.....	\$33,622 88.
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## INCOME DURING 1888.

Membership fees.....	\$9,640 00
Annual dues.....	14,928 00
Assessments — mortuary, \$38,292.85; expense, \$757.27.....	39,050 12
Medical examiners' fees.....	1,306 00
Interest.....	1,069 27
Reserve fund.....	7,050 00
Guaranty fund.....	12,240 00
Total income.....	\$85,283 39

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$36,000 00
Commissions and fees to agents.....	13,771 83
Commissions paid or allowed for collecting assessments.....	124 58
Salaries of managers and agents not paid by commissions.....	465 43
Salaries of officers.....	2,000 00
Salaries and other compensation of office employees.....	4,023 33
Medical examiners' fees paid direct by members or otherwise.....	1,306 00
Rent, taxes, advertising and printing.....	1,818 10
Advanced to officers and agents, to be repaid out of salaries or commissions.....	1,410 58
All other items.....	1,322 94
Total disbursements.....	\$62,242 79

## INVESTED ASSETS.

Stocks and bonds owned absolutely, market value.....	\$48,000 00
Agents' ledger balances.....	1,410 58
Cash in office and in bank.....	7,252 90
Other assets.....	150 00
Total invested assets.....	\$56,813 48

## LIABILITIES.

Salaries, rents and office expenses due and accrued.....	\$335 80
Advance assessments.....	111 06
Total actual liabilities.....	\$446 86

## CONTINGENT MORTUARY ASSETS.

Reserved from resisted and reported losses.....	\$900 00
Dues and guaranty fund installments .....	919 02
Mortuary assessments not yet called for losses unadjusted, \$8,399.19; resisted, \$3,000.00; reported, \$1,000; total.....	12,399 19
Total due from members.....	\$14,218 21
Deduct cost of collection .....	300 00
Net amount due from members .....	\$13,918 21

## CONTINGENT MORTUARY LIABILITIES.

Losses reported (number of claims, 1).....	1,000 00
Losses resisted (number of claims, 1).....	3,000 00
Total contingent liabilities.....	\$4,000 00

## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	339 00
Annual dues.....	222 00
Assessments .....	228 21
Medical examiners' fees.....	122 00
Guaranty fund.....	148 00
Total income during the year.....	\$1,059 21

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Losses and claims (number of claims, 1).....	\$1,000 00
Commissions and fees to agents .....	399 00
Medical examiners' fees.....	122 00
Total disbursements in Minnesota .....	\$1,521 00

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887...	1,221	\$4,444,000	7	\$13,000
Policies or certificates written during the year 1888.....	653	2,078,000	33	82,000
"Total.....	1,874	\$6,522,000	40	\$95,000
Deduct number ceased to be in force during 1888.....	215	796,000	9	27,000
Total policies in force Dec. 31, 1888.....	1,659	\$5,726,000	31	\$68,000
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	1	\$3,000		
Losses and claims on policies or certificates incurred during the year 1888.....	13	37,000	1	\$1,000
Total .....	14	\$40,000	1	\$1,000
Losses and claims on policies or certificates paid during the year 1888.....	12	\$36,000	1	\$1,000
Policies or certificates terminated by death in 1888.....	13	\$37,000	1	\$1,000
Policies or certificates terminated by lapse in 1888.....	202	\$759,000	8	\$26,000

## CHILDREN'S ENDOWMENT SOCIETY.

Principal Office.....Minneapolis.

(Organized March 30, 1887. Commenced business March 30, 1887.)

H. K. PRATT, *President*.F. P. FRENCH, *Secretary*.

Amount of net or invested assets Dec. 31, previous year.....\$400 00

## INCOME DURING 1888.

Membership fees.....	\$1,591 00
Annual dues.....	584 00
Assessments.....	2,828 50
Interest.....	14 56
Total income .....	\$5,418 06

## DISBURSEMENTS DURING 1888.

Commissions and fees to agents.....	\$1,591 00
Compensation of officers.....	649 28
Salaries and other compensation of office employees.....	33 00
Rent, \$240.00; advertising and printing, \$98.10; total.....	338 10
All other items.....	270 75
Total disbursements.....	\$2,882 13

## INVESTED ASSETS.

Cash in bank.....\$2,535 93

## EXHIBITS OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.	
	Number.	Amount.
Policies or certificates in force Dec. 31, 1887.....	146	\$131,374.50
Policies or certificates written during the year 1888.....	292	251,007.80
Total.....	438	\$382,382.00
Deduct number ceased to be in force during 1888.....	129	\$118,774.50
Total policies in force Dec. 31, 1888.....	309	\$263,607.50

NOTE.— Business confined to Minnesota.

## CITIZENS MUTUAL LIFE INSURANCE ASSOCIATION.

Principal Office.....New York City.

(Commenced business April 26, 1886.)

LEVI M. BATES, *President*.CHARLES BELL, *Secretary*.

Attorney for service of process in the State of Minnesota, WALTER T. BURR, St. Paul, Minn.

* Amount of net or invested assets Dec. 31, previous year.....	\$13,961 40
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## INCOME DURING 1888.

Membership fees not received by association.....	\$7,583 57
Expense premiums.....	15,774 92
Mortuary fund, accident premiums.....	53,673 32
Medical examiners' fees.....	1,776 00
Interest.....	535 99
<b>Total income.....</b>	<b>\$84,343 80</b>

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$52,883 12
Commissions and fees to agents.....	11,077 55
Commissions paid or allowed for collecting assessments.....	57 59
Salaries of managers and agents not paid by commissions.....	972 20
Salaries of officers.....	4,021 24
Salaries and other compensation of office employes.....	2,752 60
Medical examiners' fees paid direct by members or otherwise.....	1,970 50
Rent, taxes, advertising and printing.....	2,949 11
All other items.....	4,445 73
<b>Total disbursements.....</b>	<b>\$81,129 64</b>

## INVESTED ASSETS.

Agents' ledger balances.....	\$294 44
Cash in office and bank.....	16,881 12
Other assets.....	1,696 71
<b>Total invested assets.....</b>	<b>\$18,872 27</b>

## LIABILITIES.

Salaries and office expenses due and accrued.....	\$371 12
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## CONTINGENT MORTUARY ASSETS.

Mortuary premiums.....	\$3,498 86
Mortuary assessments not yet called for losses unadjusted, \$10,000; resisted, \$7,000; reported, \$1,000; total.....	18,000 00
<b>Total due from members.....</b>	<b>\$26,498 86</b>
Deduct cost of collection.....	1,324 94
<b>Net amount due from members.....</b>	<b>\$25,173 92</b>



## CONTINGENT MORTUARY LIABILITIES.

Losses in process of adjustment (number of claims, 1).....	\$10,000 00
Losses reported (number of claims, 1).....	1,000 00
Losses resisted (number of claims, 1).....	7,000 00
Total contingent liabilities.....	\$18,000 00

## INCOME DURING 1888 IN MINNESOTA

Membership fees.....	\$32 08
Annual dues.....	205 90
Assessments.....	559 64
Total income during the year.....	\$797 62

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Commissions and fees to agents.....	\$17 40
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## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887...	2,084	\$6,012,375	5	\$11,000
Policies or certificates written during the year 1888.....	942	1,968,700	41	92,000
Total.....	3,026	\$7,981,075	46	\$103,000
Deduct number ceased to be in force during 1888.....	778	2,105,500	9	19,000
Total policies in force Dec. 31, 1888.....	2,248	\$5,875,575	37	\$84,000
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	2	7,000		
Losses and claims on policies or certificates incurred during the year 1888.....	23	64,000		
Total.....	25	\$71,000		
Losses and claims on policies or certificates paid during the year 1888.....	21	\$53,000		
Policies or certificates terminated by death in 1888.....	26	\$64,000		
Policies or certificates terminated by lapse in 1888.....	752	\$2,041,500	9	\$19,000

## CONNECTICUT INDEMNITY ASSOCIATION.

Principal Office.....Waterbury, Conn..

(Organized April 7, 1887. Commenced business Nov. 30, 1883.)

V. L. SAWYER, *President*.E. A. WRIGHT, *Secretary*.

Attorney for service of process in the State of Minnesota, INSURANCE COMMISSIONER.

Amount of net invested assets Dec. 31, previous year.....\$69,545 48-

## INCOME DURING 1888.

Membership fees .....	\$6,169 07
Annual dues .....	11,344 39
Assessments — mortuary .....	21,526 97
Mortuary deductions.....	715 55
Interest, \$3,657.95; rent, \$12.40; total.....	3,670 35
Received from all other sources.....	11,462 50-
<b>Total income.....</b>	<b>\$54,888 83-</b>

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$12,435 74
Premiums returned.....	21 78
Commissions and fees to agents .....	8,017 13
Commissions paid or allowed for collecting assessments.....	1,076 92
Salaries of managers and agents not paid by commissions.....	8,931 67
Salaries of officers.....	5,293 33
Salaries and other compensation of office employees.....	3,033 65
Medical examiners' fees paid direct by members or otherwise.....	1,397 53-
Rent, \$1,192.66; taxes, \$1,329.80; advertising and printing, \$6,692.35; total.....	9,214 81
Advanced to officers and agents, to be repaid out of salaries or commissions.....	528 00-
All other items.....	8,950 40-
<b>Total disbursements.....</b>	<b>\$58,900 96-</b>

## INVESTED ASSETS.

Loans secured by mortgages on real estate, first liens.....	\$42,700 00-
Collateral loans.....	200 00
Stocks and bonds owned absolutely, market value.....	11,022 75-
Cash in office and in bank .....	11,610 60
Interest due and accrued.....	1,065 32
<b>Total invested assets.....</b>	<b>\$65,533 35</b>

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments due and unpaid.....	\$3,139 69
Deduct cost of collection.....	156 98-
<b>Net amount due from members.....</b>	<b>\$2,982 71</b>

## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	\$215 37
Annual dues .....	216 46
Assessments.....	217 95
Total income.....	<u>\$649 78</u>

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Salaries and traveling expenses of agents.....	\$715 00
Medical examiners' fees.....	20 00
All other items.....	88 94
Total disbursements in Minnesota.....	<u>\$823 94</u>

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887....	1,546	\$1,342,000		
Policies or certificates written during the year 1888 .....	1,098	1,341,500	20	\$46,500
Total.....	2,644	\$2,683,500	20	\$46,500
Deduct number ceased to be in force during 1888 .....	659	\$557,750	1	\$3,000
Total policies in force Dec. 31, 1888.....	1,985	\$2,125,750	19	\$43,500
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	4	4,000		
Losses and claims on policies or certificates incurred during the year 1888.....	10	6,750		
Total.....	14	\$10,750		
Losses and claims on policies or certificates paid during the year 1888.....	14	\$8,955		
Policies or certificates terminated by death in 1888.....	10	\$6,750		
Policies or certificates terminated by lapse in 1888 .....	649	\$551,000	1	\$3,000

## COVENANT MUTUAL BENEFIT ASSOCIATION.

Principal Office.....Galesburg, Ill.

(Organized Jan. 9, 1877. Commenced business Jan. 9, 1877.)

A. W. BERGGREN, *President*.E. F. Phelps, *Secretary*.

Attorney for service of process in the State of Minnesota, WM. CHENEY, Minneapolis.

Amount of net or invested assets Dec. 31, previous year..... \$315,354 94

## INCOME DURING 1888.

Membership fees.....	\$26,705 82
Annual dues.....	823 63
Assessments.....	826,309 53
Medical examiners' fees.....	4,897 00
Interest.....	9,554 75
Received from all other sources.....	11,902 88
Total income.....	\$880,193 61

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$685,576 29
Advance payments returned to rejected applicants.....	46,885 64
Commissions and fees to agents.....	17,242 01
Salaries of managers and agents not paid by commissions.....	3,650 00
Salaries of officers.....	12,377 50
Salaries and other compensation of office employees.....	17,706 85
Medical examiners' fees paid direct by members or otherwise.....	4,897 00
Rent, taxes, advertising and printing.....	6,358 80
All other items.....	19,039 30
Total disbursements.....	\$813,783 39

## • INVESTED ASSETS.

Stocks and bonds owned absolutely, market value.....	\$313,607 12
Agents' ledger balances.....	2,979 41
Cash in bank.....	65,228 63
Total invested assets.....	\$381,815 16

## LIABILITIES.

Advance assessments.....	\$15,656 94
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## CONTINGENT MORTUARY ASSETS.

Mortuary assessments called and not yet due.....	\$90,000 00
Mortuary assessments not yet called for losses unadjusted.....	160,000 00
Total due from members.....	\$250,000 00

## CONTINGENT MORTUARY LIABILITIES.

Losses adjusted, not yet due (number of claims, 30).....	\$90,000 00
Losses in process of adjustment (number of claims, 15).....	50,000 00
Losses reported (number of claims, 30).....	86,875 00
Losses resisted (number of claims, 8).....	23,125 00
Total contingent liabilities.....	\$250,000 00

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887...	27,282	\$75,760,625	614	\$1,838,750
Policies or certificates written during the year 1888.....	4,340	10,678,125	153	390,000
Total.....	31,622	\$86,438,750	767	\$2,228,750
Deduct number ceased to be in force during 1888.....	2,615	7,311,875	106	316,875
Total policies in force Dec. 31, 1888.....	29,007	\$79,126,875	661	\$1,911,875
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	64	\$216,875	3	\$11,250
Losses and claims on policies or certificates incurred during the year 1888.....	261	755,000	3	10,000
Total.....	325	\$971,875	6	\$21,250
Losses and claims on policies or certificates paid during the year 1888.....	242	\$721,875	5	\$18,750
Policies or certificates terminated by death in 1888.....	261	\$755,000	3	\$10,000
Policies or certificates terminated by lapse in 1888.....	2,241	\$5,898,125	83	\$242,500



## EDUCATIONAL ENDOWMENT ASSOCIATION.

Principal Office.....Minneapolis, Minn.

(Organized March 8, 1883. Commenced business March 8, 1883.)

J. A. STEELE, *President*.J. MERRITT, *Secretary*.

Amount of net or invested assets Dec. 31, previous year..... \$60,407 62

## INCOME DURING 1888.

Membership fees.....	\$1,842 00
Annual dues.....	5,750 00
Assessments—mortuary, \$35,145.00; expense, \$10,823.00; total.....	45,968 00
Interest.....	5,806 92
Received from all other sources.....	138 00
Total income.....	\$59,504 92

## DISBURSEMENTS DURING 1888.

Matured endowments paid (No. 143), amount.....	\$42,507 00
Assessments returned to members.....	162 24
Commissions and fees to agents.....	2,000 80
Salaries of officers, \$4,300.00; other compensation of officers, \$2,199.20; total.....	6,499 20
Salaries and other compensation of office employes.....	2,041 00
Rent, \$1,365.00; taxes, \$911.87; advertising and printing, \$3,382.38; total.....	5,659 25
All other items .....	1,509 89
Total disbursements.....	\$60,379 38

## INVESTED ASSETS.

Loans secured by mortgages on real estate, first liens.....	\$42,470 00
Collateral loans.....	12,000 00
Cash in office, \$550.00; in bank, \$4,518.06; total.....	5,068 06
Interest due.....	353 75
Total invested assets.....	\$59,886 81

## CONTINGENT ASSETS.

Assessments called and not yet due.....	1,790 00
Assessments due and unpaid.....	269 00
Total due from members.....	\$2,059 00

## CONTINGENT LIABILITIES.

Losses in process of adjustment (number of claims, 2).....	\$584 50
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## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	\$1,842 00
Annual dues.....	5,750 00
Assessments.....	45,968 00
Interest.....	5,806 92
Received from all other sources.....	138 00
Total income.....	\$59,504 92

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Losses and claims (number of claims, 143) matured endowments.....	\$42,507 00
Assessments returned to members.....	162 24
Commissions and fees to agents.....	2,000 80
Salaries and traveling expenses of agents.....	8,540 20
Rent, \$1,365.00; taxes, —; all other items, \$5,804.14; total.....	7,169 14
Total disbursements in Minnesota.....	\$60,379 38

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNE-SOTA.	
	No.	Amount.	No.	Amount.
Policies or certificates in force Dec. 31, 1887...	2,856	\$2,217,630.60	2,367	\$1,896,696.85
Policies or certificates written during the year 1888.....	446	285,493.95	368	238,365.50
Total.....	3,302	\$2,503,124.55	2,735	\$2,135,062.35
Deduct number ceased to be in force during 1888.....	492	328,277.00	428	291,567.30
Total policies in force Dec. 31, 1888.....	2,810	\$2,174,847.55	2,307	\$1,843,495.03
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	2	\$584.50	.....	.....
Losses and claims on policies or certificates paid during the year 1888.....	143	\$42,507.00	120	\$35,723.25
Policies or certificates terminated by death in 1888.....	23	\$19,887.35	15	\$12,524.40
Policies or certificates terminated by lapse in 1888.....	324	\$265,298.15	291	\$243,319.65

## EQUITABLE ACCIDENT ASSOCIATION.

Principal Office.....Binghamton, N. Y.

(Organized June 21, 1883. Commenced business Oct. 4, 1883.)

JOHN ANDERSON, *President*.J. B. ARNOLD, *Secretary*.

Attorney for service of process in the State of Minnesota, FREEMAN P. LANE, Minneapolis.

Amount of net or invested assets Dec. 31, previous year..... \$7,083 68

## INCOME DURING 1888.

Membership fees.....	\$34,771 40
Assessments—mortuary.....	111,394 41
Total income.....	<u>\$146,165 81</u>

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$71,827 78
Commissions and fees to agents.....	32,756 13
Commissions paid or allowed for collecting assessments.....	488 45
Salaries of managers and agents not paid by commissions.....	7,693 18
Salaries of officers.....	2,450 00
Salaries and other compensation of office employes.....	10,679 05
Medical examiners' fees paid direct by members or otherwise.....	3,782 22
Rents, taxes, advertising and printing.....	4,936 70
All other items.....	11,989 76
Total disbursements.....	<u>\$146,603 27</u>

## INVESTED ASSETS.

Cash in office and in bank.....	\$6,646 22
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## LIABILITIES.

Salaries, rents and office expenses due and accrued.....	\$1,400 00
Borrowed money.....	6,000 00
Advance assessments.....	2,110 41
All other (net including contingent mortuary).....	800 00
Total actual liabilities.....	<u>\$10,310 41</u>

## CONTINGENT ASSETS.

Assessments called and not yet due.....	\$15,124 00
Assessments due and unpaid.....	10,966 00
Assessments not yet called for losses unadjusted, \$16,000; resisted, \$25,070; reported, \$4,500; total.....	45,570 00
Total due from members.....	\$71,660 00
Deduct cost of collection.....	1,660 00
Net amount due from members .....	\$70,000 00

## CONTINGENT MORTUARY LIABILITIES.

Losses adjusted, not yet due (number of claims, 2) .....	\$5,650 00
Losses in process of adjustment (number of claims, 132) .....	22,485 32
Losses reported (number of claims, 58) .....	4,721 60
Losses resisted.....	25,070 00
Total contingent liabilities.....	\$57,876 92

## INCOME DURING 1888 IN MINNESOTA.

Membership fees .....	\$265 00
Assessments.....	1,756 00
Received from all other sources.....	52 00
Total income.....	\$2,073 00

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Losses and claims (number of claims, 3).....	\$96 43
Commissions and fees to agents .....	265 00
Salaries and traveling expenses of agents.....	50 00
Medical examiners' fees.....	13 00
All other items .....	350 00
Total disbursements in Minnesota.....	\$774 43

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887....	12,377	\$38,923,200	290	\$953,000
Policies or certificates written during the year 1888.....	7,757	21,989,325	53	206,000
Total.....	20,134	\$60,912,525	343	\$1,159,000
Deduct number ceased to be in force during 1888.....	12,143	33,921,750	115	462,500
Total policies in force Dec. 31, 1888.....	7,991	\$26,990,775	228	\$697,500
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	145	\$9,105	1	\$21
Losses and claims on policies or certificates incurred during the year 1888.....	1,441	77,648	5	735
Total.....	1,586	\$86,753	6	\$756
Losses and claims on policies or certificates paid during the year 1888.....	1,459	\$71,827	3	\$96
Policies or certificates terminated by death in 1888.....	17	\$22,750		
Policies or certificates terminated by lapse in 1888.....	12,126	\$33,399	115	\$462,500



## EQUITABLE AID UNION.

Principal Office.....Columbus, Pa.

(Organized March 22, 1879. Commenced business April 25, 1879.)

R. N. SEAVER, *President.*W. E. MARSH, *Secretary.*

Attorney for service of process in the State of Minnesota, W.T. BURR, St. Paul.

Amount of net or invested assets Dec. 31, previous year..... \$21,242 52

## INCOME DURING 1888.

Annual dues.....	\$16,216 86
Assessments.....	392,397 86
Medical examiners' fees.....	412 55
Received from all other sources.....	4,967 34
Total income.....	\$413,994 61

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$391,399 50
Commissions and fees returned to grand unions.....	3,780 80
Salaries and traveling expenses of officers.....	8,342 54
Compensation of representatives from grand unions.....	353 56
Rent, taxes, advertising and printing.....	4,513 53
All other items.....	2,599 80
Total disbursements.....	\$410,989 73

## INVESTED ASSETS.

Cash in office and in bank..... \$24,247 40

## LIABILITIES.

Losses adjusted, due and unpaid..... \$8,975 00

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments called and not yet due.....	\$40,862 50
Mortuary assessments not yet called for losses unadjusted.....	30,141 42
Total due from members.....	\$71,003 92

## CONTINGENT MORTUARY LIABILITIES.

Losses adjusted, not yet due (number of claims, 46)..... \$71,003 92

# INSURANCE COMMISSIONER.

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## INCOME DURING 1888 IN MINNESOTA.

Annual dues.....	\$447 95
Assessments.....	15,664 45
Medical examiners' fees.....	12 00
Received from all other sources.....	156 07
Total income.....	<u>\$16,280 47</u>

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Losses and claims (number of claims, 10).....	\$15,525 00
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## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNE-SOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887...	20,755	\$37,373,815	772	\$1,590,600
Policies or certificates written during the year 1888.....	3,948	6,316,800	43	49,790
Total.....	24,703	\$43,690,615	815	\$1,640,390
Deduct number ceased to be in force during 1888.....	2,085	3,789,157	80	92,655
Total policies in force Dec. 31, 1888.....	22,618	\$40,036,457	735	\$1,547,735
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	54	\$99,027	1	\$1,650
Losses and claims on policies or certificates incurred during the year 1888.....	212	373,700	12	20,175
Total .....	266	\$472,727	13	\$21,825
Losses and claims on policies or certificates paid during the year 1888.....	221	\$391,399	10	\$15,525
Policies or certificates terminated by death in 1888.....	210	\$373,630	12	\$20,175
Policies or certificates terminated by lapse in 1888.....	1,875	\$3,415,527	68	\$72,480

# EQUITABLE MUTUAL LIFE AND ENDOWMENT ASSOCIATION.

Principal Office.....Waterloo, Iowa.

(Organized Nov. 12, 1881. Commenced business March 14, 1882.)

FRANK NEELY, *President.*

GEORGE W. HARBIN, *Secretary.*

Attorney for service of process in the State of Minnesota, CHARLES SHANDREW, St. Paul.

Amount of net or invested assets Dec. 31, previous year.....\$22,430 85

## INCOME DURING 1888.

Membership fees.....	\$5,701 00
Annual dues.....	10,997 37
Assessments—mortuary.....	53,688 05
Medical examiners' fees.....	1,057 50
Interest, \$1,344.44; rent, \$95.83; total.....	1,440 27
Advances to agents repaid.....	1,236 03
Received from all other sources.....	588 75
Total income.....	\$74,708 97

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$54,575 00
Commissions and fees to agents.....	7,972 32
Salaries of officers.....	3,650 51
Salaries and other compensation of office employes.....	2,334 82
Medical examiners' fees paid direct by members or otherwise.....	831 37
Rent, \$500; advertising and printing, \$953; total.....	1,453 00
All other items.....	2,035 33
Total disbursements.....	\$72,852 35

## INVESTED ASSETS.

Loans secured by mortgages on real estate, first liens.....	\$11,800 00
Agents' ledger balances.....	11,311 33
Cash in office, \$199.25; in bank, \$976.89; total.....	1,176 14
Interest accrued.....	344 63
Total invested assets.....	\$24,632 10

## LIABILITIES.

Salaries, rents and office expenses due and accrued.....	\$856 84
Advance assessments.....	36 37
Total actual liabilities.....	<u>\$893 21</u>

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments called and not yet due.....	\$5,100 00
Mortuary assessments not yet called for losses unadjusted.....	3,850 00
Total due from members.....	<u>\$8,950 00</u>

## CONTINGENT MORTUARY LIABILITIES.

Losses adjusted not yet due (number of claims, 2).....	\$5,000 00
Losses in process of adjustment (number of claims, 2).....	3,750 00
Total contingent liabilities.....	<u>\$8,750 00</u>

## INCOME DURING 1888 IN MINNESOTA,

Membership fees.....	\$912 00
Annual dues.....	210 00
Assessments.....	1,225 00
Medical examiners' fees.....	168 00
Total income.....	<u>\$2,515 00</u>

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Losses and claims (number of claims, 1).....	\$2,500 00
Commissions and fees to agents.....	899 50
Medical examiners' fees.....	112 00
All other items.....	69 00
Total disbursements in Minnesota.....	<u>\$3,580 50</u>

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887.....	2,787	\$6,278,750		
Policies or certificates written during the year 1888.....	666	1,261,250	112	\$197,500
Total.....	3,453	\$7,540,000		
Deduct number ceased to be in force during 1888.....	798	\$1,627,500		
Total policies in force Dec. 31, 1888.....	2,655	\$5,912,500	146	\$288,750
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	7	\$17,500		
Losses and claims on policies or certificates incurred during the year 1888.....	21	46,250	1	\$2,500
Total.....	28	\$63,750	1	\$2,500
Losses and claims on policies or certificates paid during the year 1888.....	24	\$54,575	1	\$2,500
Policies or certificates terminated by death in 1888.....	21	\$46,250	1	\$2,500
Policies or certificates terminated by lapse in 1888.....	777	\$1,581,250		



## FIDELITY MUTUAL LIFE ASSOCIATION.

Principal Office.....Philadelphia, Pa.

Organized Dec. 2, 1878. Commenced business Jan. 1, 1879.

L. G. FOUSE, *President*.W. S. CAMPBELL, *Secretary*.

Attorney for service of process in the State of Minnesota, B. F. KNERR, Minneapolis.

Amount of net or invested assets Dec. 31, previous year.....\$107,610 52

## INCOME DURING 1888.

Membership fees.....	\$26,557 50
Annual dues.....	87,100 96
Assessments — mortuary, \$202,737.39; expense, \$7,396.19; total.....	210,133 53
Medical examiners' fees.....	6,066 00
Interest, \$7,636.99; rent, \$2,123.25; total.....	9,760 24
Advances to agents repaid.....	18,119 20
Received from all other sources.....	570 90
Total income.....	\$358,308 38

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$123,950 00
Advance payments returned to rejected applicants.....	2,459 02
Commissions and fees to agents.....	49,298 48
Commissions paid or allowed for collecting assessments.....	7,396 19
Salaries of managers and agents not paid by commissions.....	15,768 83
Salaries of officers.....	11,510 93
Salaries and other compensation of office employes.....	11,833 37
Medical examiners' fees paid direct by members or otherwise.....	7,616 00
Rent, taxes, advertising and printing.....	19,994 76
Advanced to officers and agents, to be repaid out of salaries or commissions.....	25,589 71
All other items.....	21,844 93
Total disbursements.....	\$297,262 22

## INVESTED ASSETS.

Real estate, unincumbered, market value.....	\$41,144 93
Loans secured by mortgages on real estate, first liens.....	62,542 54
Collateral loans.....	34,740 08
Stocks and bonds owned absolutely, market value.....	4,800 00
Agents' ledger balances.....	10,382 22
Cash in bank.....	17,751 46
Interest accrued.....	869 66
Total invested assets.....	\$172,230 89

## ANNUAL REPORT

## LIABILITIES.

Salaries, rents and office expenses due and accrued.....	\$1,931 77
Advance assessments.....	8,287 88.
Total actual liabilities.....	<u>\$10,219 65</u>

## CONTINGENT MORTUARY ASSETS.

Indemnity reserve fund pledged for losses.....	\$537,473 00.
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## CONTINGENT MORTUARY LIABILITIES.

Losses in process of adjustment (number of claims, 3).....	\$13,166 66.
Losses reported (number of claims, 23).....	43,500 00
Total contingent liabilities.....	<u>\$56,666 66</u>

## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	\$628 00.
Annual dues.....	3,146 50
Assessments.....	992 80
Medical examiners' fees.....	132 00
Total income.....	<u>\$4,899 30</u>

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Commissions and fees to agents.....	\$1,066 71
Commissions and fees to officers and directors.....	1,681 49
Salaries and traveling expenses of agents.....	132 00
Rent.....	156 00
Total disbursements in Minnesota.....	<u>\$3,036 20</u>

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887....	6,554	\$15,438,350	14	\$44,000
Policies or certificates written during the year 1888.....	3,586	7,495,500	1,204	1,893,000
Total.....	10,140	\$22,933,850	1,218	\$1,937,000
Deduct number ceased to be in force during 1888.....	1,122	2,817,600	4	12,000
Total policies in force Dec. 31, 1888.....	9,018	\$20,116,250	1,214	\$1,925,000
Losses and claims on policies or certificates unpaid Dec. 31, 1888.....	1	6,666		
Losses and claims on policies or certificates incurred during the year 1888.....	54	130,450		
Total.....	55	\$137,116		
Losses and claims on policies or certificates paid during the year 1888.....	52	\$123,950		
Policies or certificates terminated by death in 1888.....	54	\$130,450		
Policies or certificates terminated by lapse in 1888.....	1,068	\$2,687,150	4	\$12,000

## HOME BENEFIT ASSOCIATION.

Principal Office.....New York City.

(Commenced business Jan. 30, 1882.)

WILLIAM A. CAMP, *President.*E. A. BAKER, *Secretary.*

Attorney for service of process in the State of Minnesota, J. A. OLSON, Minneapolis, Minn.

Amount of net or invested assets Dec. 31, previous year.....	\$50,795 21
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## INCOME DURING 1888.

Annal dues.....	\$3,124 36
Assessments—mortuary, \$123,497.56; expenses, \$13,810.88; total.....	137,307 94
Medical examiners' fees.....	255 00
Interest, \$1,355.29; rent, \$66.00; total.....	1,421 29
Advances to agents repaid.....	1 50
Received from all other sources.....	308 50
Total income.....	<u>\$147,418 59</u>

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$102,445 18
Commissions and fees to agents.....	5,608 65
Commissions paid or allowed for collecting assessments.....	213 83
Salaries of managers and agents not paid by commissions.....	1,885 34
Salaries of officers, \$8,365.36; other compensation of officers, \$6,537.88; total.....	14,903 24
Salaries and other compensation of office employees.....	2,923 00
Medical examiners' fees paid direct by members or otherwise.....	2,284 76
Rent, taxes, advertising and printing.....	6,817 07
Advanced to officers and agents, to be repaid out of salaries or commissions.....	1,958 45
All other items.....	8,108 43
Total disbursements.....	<u>\$147,097 95</u>

## INVESTED ASSETS.

Loans secured by mortgages on real estate, first liens.....	\$18,000 00
Stocks and bonds owned absolutely, market value.....	1,000 00
Agents' ledger balances.....	3,166 01
Cash in office and in bank.....	28,949 84
Interest, accrued.....	104 91
Total invested assets.....	<u>\$51,220 76</u>
Deduct for depreciation.....	3,166 01
Balance.....	<u>\$48,054 75</u>

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments called and not yet due.....	\$16,819 46
Mortuary assessments due and unpaid .....	3,385 65
Mortuary assessments not yet called for losses unadjusted, \$26,000; resisted, \$44,000; reported, \$16,000; total.....	86,000 00
Total due from members.....	\$106,205 11
Deduct cost of collection.....	1,062 05
Net amount due from members .....	\$105,143 06

## CONTINGENT MORTUARY LIABILITIES.

Losses adjusted not yet due (number of claims, 1) .....	\$5,000 00
Losses in process of adjustment (number of claims, 7).....	26,000 00
Losses reported (number of claims, 3) .....	16,000 00
Losses resisted (number of claims, 9).....	44,000 00
Total contingent liabilities.....	\$91,000 00

## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	\$100 00
Assesments .....	538 91
Total income.....	\$638 91



## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887...	4, 573	\$13, 069, 169	16	\$38, 000
Policies or certificates written during the year 1888.....	1, 681	4, 257, 000	6	15, 000
Total .....	6, 254	\$17, 326, 169	22	\$53, 000
Deduct number ceased to be in force during 1888 .....	2, 501	5, 853, 669	14	33, 000
Total policies in force Dec. 31, 1888.....	3, 753	\$11, 472, 500	8	\$20, 000
Losses and claims on policies or certificates unpaid Dec. 31, 1888.....	11	60, 000	.....	.....
Losses and claims on policies or certificates incurred during the year 1888.....	44	153, 000	.....	.....
Total .....	55	\$213, 000	.....	.....
Losses and claims on policies or certificates paid during the year 1888.....	39	\$102, 445	.....	.....
Policies or certificates terminated by death in 1888.....	44	\$153, 000	.....	.....
Policies or certificates terminated by lapse in 1888.....	2, 457	\$5, 700, 669	14	\$33, 000

## HOME ENDOWMENT ASSOCIATION.

Principal Office.....Minneapolis, Minn.

(Organized Nov. 1, 1886. Commenced business Nov. 1, 1886.)

W. A. SPAULDING, *President.*W. R. PEASE, *Secretary.*

Amount of net or invested assets Dec. 31, previous year.....\$735 45

## INCOME DURING 1888.

Membership fees.....	\$1,229 00
Annual dues.....	2,445 50
Marriage assessments.....	3,459 65
Interest.....	49 36
Total income .....	\$7,184 51

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$1,029 25
Advance payments returned to rejected applicants.....	7 00
Commissions and fees to agents.....	880 00
Salaries of officers.....	670 10
Salaries and other compensation of office employes.....	1,206 00
Rent, \$292.50; advertising and printing, \$408.11; total.....	700 61
All other items.....	312 68
Total disbursements.....	\$4,805 64

## INVESTED ASSETS.

Cash in office and in bank.....\$3,183 32

## LIABILITIES.

Losses adjusted and unpaid.....\$1,333 80

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.	
	Number.	Amount.
Policies or certificates in force Dec. 31, 1887.....	649	\$577,000.00
Policies or certificates written during the year 1888.....	326	290,500.00
Total.....	975	\$867,500.00
Deduct number ceased to be in force during 1888.....	296	251,500.00
Total policies in force Dec. 31, 1888.....	679	\$616,000.00
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	1	464.00
Losses and claims on policies or certificates incurred during the year 1888 .....	9	2,715.50
Total.....	10	\$3,179.50
Losses and claims on policies or certificates paid during the year 1888...	7	\$2,077.00
Policies or certificates terminated by lapse in 1888 .....	296	\$252,000.00

NOTE.—Business confined to Minnesota.

## IOWA MUTUAL BENEFIT ASSOCIATION.

Principal Office.....Toledo, Iowa.

(Organized Jan. 17, 1882. Commenced business April 8, 1882.)

G. R. STRUBLE, *President*.HIRAM BALDWIN, *Secretary*.

Attorney for service of process in the State of Minnesota, MILO WHITE, Chatfield.

Amount of net or invested assets Dec. 31, previous year.....\$10,782 51

## INCOME DURING 1888.

Membership fees.....	\$6,672 00
Annual dues .....	7,937 75
Assessments—mortuary.....	31,446 61
Reinstatement fees.....	3,389 13
Interest, \$561.40; rent, \$120.00; total.....	681 40
Received from all other sources.....	1,500 00
Total income during the year.....	\$51,626 89

## DISBURSEMENTS DURING 1888.

Losses and claims paid .....	\$20,555 15
Advance payments returned to rejected applicants....	108 00
Commissions and fees to agents.....	7,413 76
Commissions paid or allowed for collecting assessments.....	950 92
Salaries of managers and agents not paid by commissions.....	3,233 28
Salaries of officers.....	4,561 88
Salaries and other compensation of office employes .....	928 78
Rent, advertising and printing.....	670 45
All other items.....	2,799 24
Total disbursements.....	\$41,221 46

## INVESTED ASSETS.

Real estate, unincumbered, market value.....	\$6,671 98
Loans secured by mortgages on real estate, first lien.....	6,750 00
Cash in office and in bank.....	7,765 96
Total invested assets.....	\$21,187 94

## LIABILITIES.

Losses adjusted, due and unpaid.....	\$3,617 89
Salaries, rents and office expenses due and accrued.....	2,362 90
Borrowed money.....	1,500 00
All other (not including contingent mortuary).....	1,791 45
Total actual liabilities.....	\$9,272 24

## ANNUAL REPORT

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments due and unpaid.....	\$1,000 00
Mortuary assessments not yet called for losses reported.....	20,350 00
Total due from members.....	<u>\$21,350 00</u>
Deduct cost of collection.....	2,035 00
Net amount due from members.....	<u>\$19,315 00</u>

## CONTINGENT MORTUARY LIABILITIES.

Losses reported (number of claims, 7).....	\$11,500 00
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## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	\$267 00
Annual dues.....	350 00
Assessments .....	1,487 00
Reinstatement fees.....	180 12
Total income during the year.....	<u>\$2,284 12</u>

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Losses and claims.....	\$842 68
Commissions and fees to agents.....	276 00
Salaries and traveling expenses of agents.....	250 18
All other items.....	67 00
Total disbursements in Minnesota.....	<u>\$1,435 86</u>



## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887....	1,681	\$3,346,000	99	\$185,000
Policies or certificates written during the year 1888.....	537	1,068,000	30	43,000
Total.....	2,218	\$4,414,000	129	\$228,000
Deduct number ceased to be in force during 1888.....	567	1,207,000	47	67,000
Total policies in force Dec. 31, 1888.....	1,651	\$3,207,000	82	\$161,000
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	9	8,685	1	342
Losses and claims on policies or certificates incurred during the year 1888.....	27	27,317	3	4,000
Total.....	36	\$36,002	4	\$4,342
Losses and claims on policies or certificates paid during the year 1888.....	18	\$20,555	2	\$842
Policies or certificates terminated by death in 1888.....	27	\$53,000	3	\$6,000
Policies or certificates terminated by lapse in 1888.....	540	\$1,154,000	44	\$61,000

## KEYSTONE MUTUAL BENEFIT ASSOCIATION.

Principal Office.....Allentown, Pa.

(Organized Feb. 7, 1878. Commenced business March 1, 1878.)

Dr. W. H. HARTZELL, *President.*A. R. HORNE, *Secretary.*Attorney for service of process in the State of Minnesota, N. D. BAUS, 323 Hennepin ave.  
Minneapolis.

Amount of net or invested assets Dec. 31, previous year..... \$12,792 63

## INCOME DURING 1888.

Membership fees.....	544 00
Annual dues.....	7,317 03
Assessments—mortuary.....	40,241 55
Received from all other sources.....	2,912 58
Total income during the year.....	\$51,015 16

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$30,500 00
Advance payments returned to rejected applicants.....	6 00
Commissions and fees to agents.....	501 68
Commissions paid or allowed for collecting assessments.....	2,227 46
Salaries of managers and agents not paid by commissions.....	3,071 11
Salaries of officers, \$3,365.66; other compensation of officers, \$1,298.00; total.....	4,663 66
Salaries and other compensation of office employes.....	600 00
Rent, \$862.79; taxes, \$386.70; advertising and printing, \$456.23; total.....	1,705 72
All other items.....	1,052 25
Total disbursements.....	\$44,327 88

## INVESTED ASSETS.

Cash with treasurer.....	\$19,479 91
Total invested assets.....	\$19,479 91

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments due and unpaid.....	\$1,800 00
Mortuary assessments not yet called for losses unadjusted.....	3,600 00
Total due from members.....	\$5,400 00
Deduct cost of collection.....	400 00
Net amount due from members.....	\$5,000 00

## CONTINGENT MORTUARY LIABILITIES.

Losses adjusted, not yet due (number of claims, 1).....	\$1,000 00
Losses in process of adjustment (number of claims, 1).....	1,000 00
Total contingent liabilities.....	<u>\$2,000 00</u>

## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	\$25 50
Total income during the year.....	<u>\$25 50</u>

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887....	2,329	\$2,946,000		
Policies or certificates written during the year 1888.....	333	603,000	16	\$42,500
Total.....	2,667	\$3,549,000	16	\$42,500
Deduct number ceased to be in force during 1888.....	109	125,000		
Total policies in force Dec. 31, 1888.....	2,558	\$3,424,000	16	\$42,500
Losses and claims on policies or certificates unpaid Dec. 31 1887.....				
Losses and claims on policies or certificates incurred during the year 1888.....	28	\$30,500		
Total.....	28	\$30,500		
Losses and claims on policies or certificates paid during the year 1888.....	28	\$30,500		
Policies or certificates terminated by death in 1888.....	28	\$30,500		
Policies or certificates terminated by lapse in 1888.....	84	\$94,500		

# KNIGHTS TEMPLARS AND MASONS LIFE INDEMNITY COMPANY.

Principal Office.....Chicago, Ill.

(Organized May 5, 1884. Commenced business May 27, 1884.)

J. ADAMS ALLEN, *President.*

W. H. GRAY, *Secretary.*

Attorney for service of process in the State of Minnesota, N. STAUGHTEN, Winona.

Amount of net or invested assets Dec. 31, previous year.....\$31,940 13

## INCOME DURING 1888.

Membership fees.....	\$17,999 95
Annual dues.....	13,448 20
Assessments—mortuary, \$112,363; expense, \$37,452.90 total.....	149,815 90
Interest.....	1,246 89
Received from all other sources.....	499 27
Total income during the year.....	183,010 21

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$103,970 30
Commissions and fees to agents .....	24,810 58
Salaries of officers.....	8,000 00
Salaries and other compensation of office employees.....	3,629 73
Medical examiners' fees paid direct by members or otherwise.....	5,733 00
Rent, \$1,200.00; taxes, \$1,436.55; total.....	2,636 55
All other items.....	8,826 00
Total disbursements .....	\$157,606 16

## INVESTED ASSETS.

Stocks and bonds owned absolutely, market value.....	\$16,000 00
Cash in office and in bank.....	41,344 18
Total invested assets.....	\$57,344 18

## LIABILITIES.

Losses adjusted, due and unpaid.....	503 00
Advance assessments.....	1,159 21
Total actual liabilities.....	\$1,662 21

## CONTINGENT MORTUARY LIABILITIES.

Losses adjusted, not yet due (number of claims, 2) .....	\$7,187 50
Losses reported .....	15,135 50
Losses resisted.....	3,000 00
Total contingent liabilities.....	\$25,323 00

## INSURANCE COMMISSIONER.

771

## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	\$1,218 75
Annual dues.....	1,398 00
Assessments .....	16,646 20
Total income during the year .....	<u>\$19,262 95</u>

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Losses and claims (number of claims, 3).....	\$5,828 90
Commissions and fees to agents .....	1,068 75
Medical examiners' fees.....	250 00
All other items .....	255 32
Total disbursements in Minnesota.....	<u>\$7,402 97</u>

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887...	3,976	\$15,771,806.00	439	\$1,786,000.00
Policies or certificates written during the year 1888.....	1,940	6,867,500.00	125	454,000.00
Total .....	5,916	\$22,639,306.00	564	\$2,190,000.00
Deduct number ceased to be in force during 1888.....	656	2,592,500.00	58	213,000.00
Total policies in force Dec. 31, 1888 .....	5,260	\$20,046,806.00	506	\$1,977,000.00
Losses and claims on policies or certificates unpaid Dec. 31, 1888.....	7	20,294.25	1	828.90
Losses and claims on policies or certificates incurred during the year 1888.....	27	108,999.05	3	6,000.00
Total.....	34	\$129,293.30	4	\$6,328.90
Losses and claims on policies or certificates paid during the year 1888.....	26	\$103,970.30	3	\$5,828.90
Policies or certificates terminated by death in 1888.....	27	\$112,000.00	3	\$11,000.00
Policies or certificates terminated by lapse in 1888.....	569	\$2,284,500.00	47	\$182,000.00



## LIFE AND RESERVE ASSOCIATION.

Principal Office.....Buffalo, N. Y.

(Commenced business March 3, 1883.)

J. W. WOODRUFF, *President.*W. C. DUTCHER, *Secretary.*

Attorney for service of process in the State of Minnesota, E. D. FRENCH, Redwood Falls.

Amount of net or invested assets Dec. 31, previous year.....	\$37,722 27
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## INCOME DURING 1888.

Membership fees.....	\$15,554 00
Annual dues.....	6,860 00
Assessments—mortuary, reserve fund and expense .....	86,825 40
Medical examiners' fees.....	4,362 00
Interest.....	2,316 11
Total income during the year.....	\$115,917 51

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$47,150 00
Advanced payments returned to rejected applicants.....	2,165 00
Commissions and fees to agents.....	8,523 70
Commissions paid or allowed for collecting assessments.....	3,143 25
Salaries of managers and agents not paid by commissions.....	7,711 11
Salaries and other compensation of officers.....	3,245 37
Salaries and other compensation of office employes.....	4,334 07
Medical examiners' fees paid direct by members or otherwise.....	4,362 00
Rent, taxes, advertising and printing.....	2,462 83
All other items.....	4,184 21
Total disbursements.....	\$87,281 54

## INVESTED ASSETS.

Loans secured by mortgages on real estate, first liens.....	\$34,245 01
Agents' ledger balances.....	6,088 86
Cash in office and in bank.....	20,098 10
Other assets.....	1,415 78
Total invested assets.....	\$61,847 74

## LIABILITIES.

Losses adjusted, due and unpaid.....	\$2,000 00
Salaries, rents and office expenses due and accrued.....	3,392 26
Advance assessments, \$23.80; bonds or dividend obligations, \$7,776.49; total.....	7,800 29
Total actual liabilities.....	\$13,192 55

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments called and not yet due.....	\$19,814 00
Mortuary assessments not yet called for losses unadjusted, \$6,000; resisted, \$15,000; total.....	21,000 00
Total due from members.....	\$40,814 00
Deduct cost of collection.....	2,856 98
Net amount due from members.....	\$37,957 02

## CONTINGENT MORTUARY LIABILITIES.

Losses adjusted, not yet due (number of claims, 5).....	\$9,000 00
Losses in process of adjustment (number of claims, 4).....	6,000 00
Losses resisted (number of claims, 1).....	1,955 30
Total contingent liabilities.....	\$16,955 36

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Num- ber.	Amount.	Num- ber.	Amount.
Policies or certificates in force Dec. 31, 1887....	5,585	\$5,585,000	16	\$16,000
Policies or certificates written during the year 1888.....	3,038	3,038,000	25	25,000
Total.....	8,623	\$8,623,000	41	\$41,000
Deduct number ceased to be in force during 1888.....	2,426	2,426,000	8	8,000
Total policies in force Dec. 31, 1888.....	6,197	\$6,197,000	33	\$33,000
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	19	19,000		
Losses and claims on policies or certificates incurred during the year 1888.....	46	46,000		
Total.....	65	\$65,000		
Losses and claims on policies or certificates paid during the year 1888.....	48	\$47,000		
Policies or certificates terminated by death in 1888.....	46	\$46,000		
Policies or certificates terminated by lapse in 1888.....	2,380	\$2,380,000		

## MANUFACTURERS ACCIDENT INDEMNITY COMPANY.

Principal Office .....Geneva, New York..

(Organized Dec. 1, 1886. Commenced business Jan. 1, 1887.)

THOMAS SMITH, *President.*W. D. CHASE, *Secretary.*

Attorney for service of process in the State of Minnesota, C. H. VAN AUKIN, St. Paul.

Amount of net or invested assets Dec. 31, previous year..... \$107,108 15

## INCOME DURING 1888.

Membership fees.....	30,110 00
Annual dues.....	2,077 00
Assessments — mortuary.....	38,639 05
Medical examiners' fees.....	22 00
Interest.....	288 03
Advances to agents repaid.....	5 60
Received from all other sources.....	10 10
Total income during the year.....	\$71,151 78

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$22,503 51
Advance payments returned to rejected applicants.....	53 50
Commissions and fees to agents.....	29,300 94
Commissions paid or allowed for collecting assessments.....	1,154 87
Salaries of managers and agents not paid by commissions.....	1,619 05
Salaries of officers, \$1,250; other compensation of officers, \$3,650; total.....	4,900 00
Salaries and other compensation of office employees.....	2,675 66
Medical examiners' fees paid direct by members or otherwise.....	209 50
Rent, \$75.00; advertising and printing, \$3,871.93; total.....	3,946 93
Advanced to officers and agents, to be paid out of salaries or commissions.....	67 06
Reserve fund returned to trustees.....	50,000 00
All other items.....	3,924 58
Total disbursements.....	\$120,355 60

## INVESTED ASSETS.

Loans secured by mortgages on real estate, first liens.....	\$50,000 00
Cash in office and in bank .....	7,904 33
Total invested assets .....	\$57,904 33

## LIABILITIES.

Salaries, rents and office expenses due and accrued.....	\$240 00
Advance assessments.....	1,826 72
All other (not including contingent mortuary).....	450 00
Total actual liabilities.....	\$2,516 72

## CONTINGENT MORTUARY LIABILITIES.

Losses in process of adjustment (number of claims, 7).....	\$160 00
Losses resisted (number of claims, 1).....	154 30
Total contingent liabilities.....	\$314 30

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887...	3,801	\$126,882.75	45	\$1,935.00
Policies or certificates written during the year 1888.....	6,160	163,112.50	69	2,565.00
Total.....	9,961	\$289,995.25	114	\$4,500.00
Deduct number ceased to be in force during 1888.....	3,282	\$73,660.50	59	\$2,365.00
Total policies in force Dec. 31, 1888.....	6,679	\$216,334.75	55	\$2,137.50
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	1	\$250.00		
Losses and claims on policies or certificates incurred during the year 1888.....	521	22,407.81		
Total.....	522	\$22,657.81		
Losses and claims on policies or certificates paid during the year 1888.....	521	\$22,503.51		
Policies or certificates terminated by death in 1888.....	5	\$7,500.00		
Policies or certificates terminated by lapse in 1888.....	3,277	\$73,585.50	59	2,362.50

## MASSACHUSETTS BENEFIT ASSOCIATION.

Principal Office..... Boston, Mass

(Organized Feb. 8, 1878. Commenced business Oct. 13, 1879.)

WILLIARD MARCY, *President.*GEO. A. LITCHFIELD, *Secretary.*

Attorney for service of process in the State of Minnesota, A. R. MCGILL, St. Paul, Minn.

Amount of net or invested assets Dec. 31, previous year..... \$211,906 29

## INCOME DURING 1888.

Membership fees.....	\$34,039 51
Annual dues.....	63,996 00
Assessments—mortuary, \$599,815.64; reserve, \$82,573.44; total.....	682,389 08
Medical examiners' fees.....	3,454 00
Interest.....	9,797 16
Total income during the year.....	\$793,675 75

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$603,100 62
Commissions and fees to agents.....	65,677 20
Salaries of managers and agents not paid by commissions.....	3,291 69
Salaries of officers.....	7,499 97
Salaries and other compensation of office employees.....	5,204 82
Medical examiners' fees paid direct by members or otherwise.....	4,895 10
Rent, \$1,370.04; taxes, \$911.75; advertising and printing, \$5,457.09; total.....	7,738 88
All other items.....	10,560 31
Total disbursements.....	\$707,968 09

## INVESTED ASSETS.

Loans secured by mortgages on real estate, first liens.....	\$47,025 00
Stocks and bonds owned absolutely, market value.....	67,562 50
Bills receivable secured.....	1,193 92
Cash in office and in bank.....	181,832 53
Interest accrued.....	1,984 53
Total invested assets.....	\$299,598 48

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments not yet called for losses reported..... \$209,258 00

## CONTINGENT MORTUARY LIABILITIES.

Losses adjusted, not yet due (number of policies, 20).....	\$72,110 00
Losses in process of adjustment (number of policies, 19).....	61,148 00
Losses reported (number of policies 10).....	44,000 00
Losses resisted (number of policies, 8).....	32,000 00
Total contingent liabilities.....	\$209,258 00



## INSURANCE COMMISSIONER.

777

## INCOME DURING 1888 IN MINNESOTA

Membership fees.....	\$164 00
Annual dues.....	327 00
Assessments.....	1,329 60
Medical examiners' fees.....	22 00
Total income during the year .....	<u>\$1,842 60</u>

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Commissions and fees to agents.....	\$273 00
Medical examiners' fees.....	22 00
Taxes.....	11 00
Total disbursements in Minnesota.....	<u>\$306 00</u>

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Num-ber.	Amount.	Num-ber.	Amount.
Policies or certificates in force Dec. 31, 1887....	13,406	\$48,977,000	30	\$104,000
Policies or certificates written during the year 1888.....	4,576	10,393,000	11	36,000
Total.....	17,982	\$59,370,000	41	\$140,000
Deduct number ceased to be in force during 1888.....	1,849	6,255,000	18	65,000
Total policies in force Dec. 31, 1888.....	16,133	\$53,115,000	23	\$75,000
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	51	\$182,000		
Losses and claims on policies or certificates incurred during the year 1888.....	183	660,000		
Total.....	234	\$842,000		
Losses and claims on policies or certificates paid during the year 1888.....	177	\$603,100		
Policies or certificates terminated by death in 1888.....	183	\$660,000		
Policies or certificates terminated by lapse in 1888.....	1,666	\$5,595,000	18	\$65,000

# MASONS FRATERNAL ACCIDENT ASSOCIATION.

Principal Office.....Westfield, Mass.

(Organized Aug. 15, 1887. Commenced business Oct. 1, 1887.)

WILLIAM PROVIN, *President.*

J. A. DAKIN, *Secretary.*

Attorney for service of process in the State of Minnesota, CHARLES SHANDREW, St. Paul.

## INCOME DURING 1888.

Membership fees.....	\$24,010 00
Annual dues.....	5,600 00
Assessments — benefit.....	10,168 00
Total income.....	<u>\$39,778 00</u>

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$4,246 22
Commissions and fees to agents.....	24,229 52
Commissions paid or allowed for collecting assessments.....	376 86
Salaries and other compensation of officers.....	428 48
Salaries and other compensation of office employees.....	556 74
Medical examiners' fees paid direct by members or otherwise.....	9 00
Rent, \$325.00; advertising and printing, \$1,605.49; total.....	1,930 49
Advanced to officers and agents, to be repaid out of salaries or commissions.....	1,989 91
Total disbursements.....	<u>\$33,767 22</u>

## INVESTED ASSETS.

Cash in office and in bank.....	\$6,010 78
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## LIABILITIES.

Advance assessments and dues.....	\$253 00
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## CONTINGENT MORTUARY ASSETS.

Mortuary assessments due and unpaid.....	\$3,532 00
Deduct cost of collection.....	176 60
Net amount due from members.....	<u>\$3,355 40</u>

## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	\$5,945 00
Annual dues.....	696 00
Assessments.....	1,392 00
Total income during the year.....	<u>\$8,033 00</u>

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Losses and claims.....	\$1,619 90
Commissions and fees to agents.....	6,063 25
All other items.....	349 85
Total disbursements in Minnesota.....	\$8,033 00

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887....	204			
Policies or certificates written during the year 1888.....	4,802		1,189	\$5,009,000.00
Total.....	5,006	\$20,669,000.00		
Deduct number ceased to be in force during 1888 .....	159	613,750.00		
Total policies in force Dec. 31, 1888 .....	4,847	\$20,055,250.00	696	\$3,601,000.00
Losses and claims on policies or certificates incurred during the year 1888.....		\$4,226.22	34	\$1,619.90
Policies or certificates terminated by lapse in 1888.....			493	\$2,008,000.00

## MASONIC MUTUAL LIFE ASSOCIATION.

Principal Office.....Cleveland, Ohio.

Organized June 11, 1883. Commenced business Aug. 1, 1883.)

F. W. PELTON, *President.*FRED A. MORSE, *Secretary.*

Attorney for service of process in the State of Minnesota, J. W. HEYWOOD, St. Paul.

Amount of net or invested assets Dec. 31, previous year.....	\$10,287 42
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## INCOME DURING 1888.

Membership fees.....	1,057 25
Assessments—mortuary .....	92,383 60
Interest .....	438 89
Received from all other sources.. ..	10 00
Total income during the year .....	\$93,889 74

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$76,000 00
Payments returned to dropped members.....	129 00
Commissions and fees to agents.....	556 50
Paid for collecting assessments.....	1,254 65
Salaries of managers and agents not paid by commissions.....	4,000 00
Other compensation of officers.....	213 00
Salaries and other compensation of office employes.....	2,642 49
Rent, \$301.25; advertising and printing, \$510.43; total.....	811 68
All other items.....	1,648 13
Total disbursements.....	\$87,255 45

## INVESTED ASSETS.

Ledger balances Fidelity Bank.....	\$65 50
Cash in office and in bank.....	16,856 21
Total invested assets.....	\$16,921 71

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments not yet called for losses unadjusted.....	\$7,300 00
Deduct cost of collection.....	100 00
Net amount due from members.....	\$7,200 00

## CONTINGENT MORTUARY LIABILITIES.

Losses adjusted, not yet due (number of claims, 1) .....	\$5,000 00
Total contingent liabilities.....	\$5,000 00

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.	
	Num- ber.	Amount.
Policies or certificates in force Dec. 31, 1887.....	2,361	\$8,882,000.00
Policies or certificates written during the year 1888.....	400	1,231,000.00
Total.....	2,761	10,113,000.00
Deduct number ceased to be in force during 1887.....	236	907,000.00
Total policies in force Dec. 31, 1888.....	2,525	\$9,206,000.00
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	3	9,000.00
Losses and claims on policies or certificates incurred during the year 1888	19	72,000.00
Total .....	22	\$81,000.00
Losses and claims on policies or certificates paid during the year 1888..	21	\$76,000.00
Policies or certificates terminated by death in 1888.....	19	72,000.00
Policies or certificates terminated by lapse in 1888.....	217	835,000.00



## MASONS UNION LIFE ASSOCIATION.

Principal Office .....Indianapolis, Ind.

(Organized Sept. 21, 1887. Commenced business Sept. 21, 1887.)

MORTIMER NYE, *President.*JAMES S. ANDERSON, *Secretary.*

Attorney for service of process in the State of Minnesota, E. M. COON, Rochester, Minn.

Amount of net or invested assets May 1, previous year (date of last statement)... \$1,465 62

## INCOME DURING 1888.

Membership fees.....	\$499 00
Annual dues.....	180 50
Assessments — mortuary.....	2,115 55
Medical examiners' fees.....	80 00
Interest.....	23 54
Total income during the year.....	\$2,898 59

## DISBURSEMENTS DURING 1888, FROM MAY 1, 1888.

Commissions and fees to agents.....	\$499 00
Commissions paid or allowed for collecting assessments.....	96 94
Salaries of managers and agents not paid by commissions.....	250 90
Salaries of officers.....	422 31
Medical examiners' fees paid direct by members or otherwise.....	80 00
Rent, \$50.00; advertising and printing, \$184.25; total.....	234 25
All other items.....	105 30
Total disbursements.....	\$1,688 70

## INVESTED ASSETS.

Cash in bank.....	\$2,675 51
Total invested assets.....	\$2,675 51

## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	\$131 00
Annual dues.....	31 00
Medical examiners' fees.....	38 00
Assessments.....	115 00
Total income during the year.....	\$315 00

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Commissions and fees to agents.....	\$226 00
Medical examiners' fees.....	38 00
Total disbursements in Minnesota.....	\$264 00

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Num- ber.	Amount.	Num- ber.	Amount.
Policies or certificates in force May 1, 1888.....	182	\$266,000	.....	.....
Policies or certificates written during the year 1888.....	61	118,000	19	\$31,000
Total.....	243	\$384,000	19	\$31,000
Deduct number ceased to be in force during 1888.....	8	15,000	2	3,000
Total policies in force Dec. 31, 1888.....	235	\$369,000	17	\$29,000
Policies or certificates terminated by lapse in 1888.....	8	\$15,000	2	\$3,000

## MINNESOTA MUTUAL BENEFIT ASSOCIATION.

Principal Office.....Minneapolis, Minn.

(Organized Dec. 30, 1881. Commenced business Jan. 20, 1882.)

CHARLES P. LOVELL, *President.*E. B. TRUBEY, *Secretary.*

Attorney for service of process in the State of Minnesota, WILSON &amp; VANDERLIP, Minneapolis.

Amount of net or invested assets Dec. 31, previous year.....	\$4,936 00
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## INCOME DURING 1888.

Membership fees .....	2,055 00
Assessments — mortuary .....	13,813 50
Interest.....	45 00
Advances to general manager repaid.....	2,000 00
Received from all other sources.....	945 00
Total income during the year.....	\$18,858 50

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$7,952 92
Advance payments returned to rejected applicants .....	26 96
Commissions and fees to agents.....	1,849 93
Commissions paid or allowed for collecting assessments.....	362 12
Salaries of managers and agents not paid by commissions.....	925 14
Other compensation of officers.....	1,672 70
Salaries and other compensation of office employes.....	1,653 70
Medical examiners' fees paid direct by members or otherwise.....	137 50
Rent, \$360.00; taxes, \$6.24; advertising and printing, \$298.35; total.....	664 59
All other items.....	1,175 31
Total disbursements.....	\$16,420 87

## INVESTED ASSETS.

Stocks and bonds owned absolutely, market value.....	\$1,123 18
Cash in bank.....	6,250 50
Total invested assets.....	\$7,373 63

## LIABILITIES.

Advance assessments.....	\$10 00
Total actual liabilities.....	\$10 00

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments not yet called for losses unadjusted, \$2,500; resisted, \$3,500; reported, \$1,500; total.....	\$7,500 00
Total due from members.....	\$7,500 00
Deduct cost of collection.....	200 00
Net amount due from members.....	\$7,300 00

## CONTINGENT MORTUARY LIABILITIES.

Losses adjusted, not yet due (number of claims, 3).....	\$5,000 00
Losses reported (number of claims, 1).....	1,500 00
Losses resisted (number of claims, 2).....	3,500 00
Total contingent liabilities.....	\$10,000 00

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount
Policies or certificates in force Dec. 31, 1887.....	728	\$1,784,500	.....	.....
Policies or certificates written during the year 1888.....	137	344,250	.....	.....
Total.....	865	\$2,128,750	.....	.....
Deduct number ceased to be in force during 1888.....	211	\$532,000	.....	.....
Total policies in force Dec. 31, 1888.....	654	\$1,596,750	.....	.....
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	3	\$5,000	.....	.....
Losses and claims on policies or certificates incurred during the year 1888.....	6	10,500	.....	.....
Total.....	9	\$15,500	.....	.....
Losses and claims on policies or certificates paid during the year 1888.....	4	\$6,225	.....	.....
Policies or certificates terminated by death in 1888.....	6	\$10,500	.....	.....
Policies or certificates terminated by lapse in 1888.....	205	\$521,500	.....	.....

NOTE.—Business confined to Minnesota.

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## MINNESOTA SCANDINAVIAN RELIEF ASSOCIATION.

Principal Office.....Red Wing, Minn.

(Organized Feb. 14, 1879. Commenced business Feb. 17, 1879.)

T. K. SIMMONS, *President.*A. G. ROSING, *Secretary.*

Attorney for service of process in the State of Minnesota, A. G. ROSING, Red Wing.

Amount of net or invested assets Dec. 31, previous year..... \$14,774 86

## INCOME DURING 1888.

Membership fees.....	\$3,543 00
Assessments—mortuary, \$38,093.02; expense, \$7,752.83; total.....	45,845 85
Interest, \$150.00; rent, \$17.34; total.....	167 34
Received from all other sources.....	293 28
Total income during the year.....	\$49,849 47

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$39,000 00
Advance payments returned to rejected applicants.....	28 00
Commissions and fees to agents.....	2,879 00
Salaries of officers, \$1,083.33; other compensation of officers, \$186.85; total.....	1,270 18
Salaries and other compensation of office employes.....	894 00
Medical examiners' fees paid direct by members or otherwise.....	928 00
Rent, \$377.52; advertising and printing, \$563.33; total.....	940 85
All other items.....	721 38
Total disbursements.....	\$46,661 41

## INVESTED ASSETS.

Members ledger balances.....	\$4 40
Cash in office and in bank.....	17,958 52
Interest accrued.....	64 73
Total invested assets.....	\$18,027 65

## LIABILITIES.

Losses adjusted, due and unpaid.....	\$8,500 00
Total actual liabilities .....	\$8,500 00



## INSURANCE COMMISSIONER.

787

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments called and not yet due.....	\$1,200 00
Mortuary assessments not yet called for losses unadjusted, \$6,000; resisted, \$2,000; total.....	<u>8,000 00</u>
Net amount due from members.....	\$9,200 00

## CONTINGENT MORTUARY LIABILITIES.

Losses in process of adjustment (number of claims, 3).....	\$6,000 00
Losses resisted (number of claims, 1).....	<u>2,000 00</u>
Total contingent liabilities.....	\$8,000 00

## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	\$3,301 00
Assessments.....	44,886 80
Interest.....	150 00
Rents .....	17 34
Received from all other sources.....	<u>293 28</u>
Total income during the year.....	\$48,648 42

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Losses and claims (number of claims, 23).....	\$39,000 00
Assessments returned to members.....	28 00
Commissions and fees to agents.....	2,691 00
Salaries and traveling expenses of agents.....	2,089 03
Medical examiners' fees.....	<u>874 00</u>
Rent, \$377.52; taxes, \$1,359.86; total.....	1,737 38
Total disbursements in Minnesota.....	\$46,419 41

## EXHIBITS OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887....	2,654	\$4,623,000	2,565	\$4,487,500
Policies or certificates written during the year 1888.....	473	643,000	446	602,500
Total.....	3,127	\$5,266,000	3,011	\$5,090,000
Deduct number ceased to be in force during 1888.....	415	674,000	383	619,000
Total policies in force Dec. 31, 1888.....	2,712	\$4,592,500	2,628	\$4,471,000
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	10	17,500	10	\$17,500
Losses and claims on policies or certificates incurred during the year 1888.....	21	39,000	21	39,000
Total.....	31	\$56,500	31	\$56,500
Losses and claims on policies or certificates paid during the year 1888.....	23	\$39,000	23	\$39,000
Policies or certificates terminated by death in 1888.....	21	\$39,000	21	\$39,000
Policies or certificates terminated by lapse in 1888.....	394	\$635,000	362	\$558,000

## MODERN WOODMEN OF AMERICA.

Principal Office.....Fulton, Ill.

(Commenced business May 5, 1884.)

J. C. ROOT, *President.*F. C. BRAYTON, *Secretary.*

Attorney for service of process in the State of Minnesota, W. B. JONES, Minneapolis.

Amount of net or invested assets Dec. 31, previous year.....\$2,486 76

## INCOME DURING 1888.

Annual dues.....	\$15,261 04
Assessments—mortuary .....	173,599 95
Received from all other sources .....	583 82
Total income during the year.....	<u>\$189,444 81</u>

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$167,000 00
Commissions and fees to agents .....	3,573 54
Salaries of officers.....	2,335 00
Salaries and other compensation of office employes .....	528 34
Medical examiners' fees paid direct by members or otherwise.....	2,532 00
Rent, taxes, advertising and printing .....	4,043 52
All other items .....	2,374 40
Total disbursements.....	<u>\$182,386 80</u>

## INVESTED ASSETS.

Cash in bank .....\$9,544 77

## INCOME DURING 1888 IN MINNESOTA.

Annual dues.....	\$356 50
Assessments .....	3,142 40
Total income during the year .....	<u>\$3,498 90</u>

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Losses and claims.....\$7,000 00

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887...	15, 286	\$32, 008, 000	354	\$719, 000
Policies or certificates written during the year 1888.....	11, 812	24, 542, 000	351	675, 000 *
Total.....	27, 098	\$56, 550, 000	705	\$1, 394, 000
Deduct number ceased to be in force during 1888 .....	2, 118	4, 196, 000	113	204, 000
Total policies in force Dec. 31, 1888.....	24, 980	\$52, 354, 000	592	\$1, 190, 000
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	9	\$17, 000	.....	.....
Losses and claims on policies or certificates incurred during the year 1888.....	90	178, 000	4	7, 000
Total .....	99	\$195, 000	4	\$7, 000
Losses and claims on policies or certificates paid during the year 1888.....	83	\$167, 000	4	\$7, 000
Policies or certificates terminated by death in 1888.....	90	\$178, 000	4	\$7, 000
Policies or certificates terminated by lapse in 1888 .....	2, 028	\$4, 018, 000	109	\$197, 000

## MUTUAL RESERVE FUND LIFE ASSOCIATION.

Principal Office..... New York City.

(Organized February, 1881. Commenced business February, 1881.)

EDWARD B. HARPER, *President*.F. T. BRAMAN, *Secretary*.

Attorney for service of process in the State of Minnesota, GEORGE P. WILSON, Minneapolis.

Amount of net or invested assets Dec. 31, previous year..... \$1,472,200 49

## INCOME DURING 1888.

Membership fees.....	\$129,481 35
Annual dues.....	349,888 28
Assessments — mortuary.....	2,142,358 46
Medical examiners' fees.....	32,220 00
Interest.....	57,261 64
Received from all other sources.....	604 35
Total income during the year.....	<u>\$2,711,814 08</u>

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$1,582,332 23
Assessments returned to rejected applicants.....	2,738 94
Commissions and fees to agents.....	241,132 55
Commissions paid or allowed for collecting assessments.....	78,687 30
Salaries of managers and agents not paid by commissions.....	28,050 00
Salaries of officers.....	39,025 00
Salaries and other compensation of office employes.....	41,417 25
Medical examiners' fees paid direct by members or otherwise.....	38,513 56
Rent, \$25,130.63; taxes, \$10,512.13; advertising and printing, \$47,357.29; total..	83,000 05
All other items.....	95,363 88
Total disbursements.....	<u>\$2,230,260 76</u>

## INVESTED ASSETS.

Loans secured by mortgages on real estate, first liens.....	\$1,496,000 00
Stocks and bonds owned absolutely, market value.....	1,000 00
Agents' ledger balances.....	68,482 75
Cash in office, \$20,966.30; in bank, \$367,304.66; total.....	388,270 96
Interest due, \$975.00; accrued, \$15,971.48 total.....	16,946 48
Total invested assets.....	<u>\$1,970,700 19</u>

## LIABILITIES.

Advance assessments, \$7,515.53; bonus or dividend obligations, \$286,004.48; total	\$293,520 01
Total actual liabilities.....	<u>\$293,520 01</u>



## ANNUAL REPORT

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments called and not yet due.....	\$730, 813 04
Mortuary assessments due and unpaid.....	86, 886 36
Total due from members.....	\$817, 699 40
Deduct cost of collection.....	46, 108 19
Net amount due from members.....	\$771, 591 21

## CONTINGENT MORTUARY LIABILITIES.

Losses adjusted, not yet due (number of claims, 68).....	\$234, 650 00
Losses in process of adjustment (number of claims, 58).....	238, 900 00
Losses resisted (number of claims, 5).....	23, 000 00
All other contingent liabilities.....	423, 773 00
Total contingent liabilities.....	\$920, 323 00

## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	\$1, 478 00
Annual dues.....	4, 900 00
Assessments.....	30, 683 52
Medical examiners' fees.....	243 00
Total income during the year.....	\$37, 304 52

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Losses and claims.....	\$12, 000 00
Commissions and fees to agents.....	770 18
Salaries and traveling expenses of agents.....	62 50
Medical examiners' fees.....	243 00
All other items.....	86 00
Total disbursements in Minnesota.....	\$13, 161 68

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887....	42,625	\$156,554,100	574	\$2,514,500
Policies or certificates written during the year 1888.....	12,124	37,906,800	93	369,500
Total.....	54,749	\$194,460,900	667	\$2,884,000
Deduct number ceased to be in force during 1888.....	7,056	\$25,558,050	122	\$589,500
Total policies in force Dec. 31, 1888.....	47,693	\$168,902,850	545	\$2,294,500
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	114	\$439,694		
Losses and claims on policies or certificates incurred during the year 1888.....	434	1,693,250	3	\$12,000
Total.....	548	\$2,132,944	3	\$12,000
Losses and claims on policies or certificates paid during the year 1888.....	426	\$1,582,332	3	\$12,000
Policies or certificates terminated by death in 1888.....	434	\$1,693,250	3	\$12,000
1888.....	1,113	\$3,854,050	12	\$58,500
Policies or certificates terminated by lapse in 1888.....	5,509	\$20,010,750	107	\$519,000

## NATIONAL ACCIDENT SOCIETY.

Principal Office.....New York City.

(Organized Nov. 2, 1885. Commenced business Dec. 15, 1885.)

J. L. BARTON, *President.*J. I. BARNUM, *Secretary.*

Attorney for service of process in the State of Minnesota, CHAS. SHANDREW, St. Paul.

Amount of net or invested assets Dec. 31, previous year.....	\$2,248 00
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## INCOME DURING 1888.

Membership fees.....	\$19,998 00
Annual dues.....	10,908 18
Assessments .....	16,063 85
Total income during the year.....	\$46,970 03

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$14,747 63
Commissions and fees to agents .....	19,998 00
Medical examiners' fees paid direct by members or otherwise.....	1,567 54
Annual dues paid to the Guarantee Agency Company.....	10,908 18
Total disbursements .....	\$47,221 35

## INVESTED ASSETS.

Cash in office and in bank.....	\$1,996 68
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## LIABILITIES.

Losses adjusted, due and unpaid.....	\$346 42
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## CONTINGENT MORTUARY ASSETS.

Mortuary assessments called and not yet due.....	\$4,406 50
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## CONTINGENT MORTUARY LIABILITIES.

Losses adjusted not yet due (number of claims, 3).....	\$1,875 00
Losses in process of adjustment .....	4,469 63
Losses resisted (number of claims, 3) .....	8,125 00
Total contingent liabilities.....	\$14,469 63

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887...	6, 075	\$20, 618, 500	39	\$164, 000
Policies or certificates written during the year 1888.....	4, 042	12, 742, 250	121	437, 000
Total .....	10, 117	\$33, 360, 750	160	\$601, 000
Deduct number ceased to be in force during 1888 .....	7, 629	24, 100, 500	121	454, 000
Total policies in force Dec. 31, 1888 .....	2, 488	\$9, 260, 250	39	\$147, 000
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....		\$3, 301		
Losses and claims on policies or certificates incurred during the year 1888.....		17, 791	6	\$245
Total.....		\$21, 092		\$245
Losses and claims on policies or certificates paid during the year 1888 .....	296	\$14, 747	5	\$125

## NORTH AMERICAN MUTUAL BENEFIT ASSOCIATION.

Principal Office.....Chicago, Ill.

(Organized April, 1880. Commenced business August, 1880.)

J. N. BARKER, *President.*W. G. FARRAR, *Secretary.*

Attorney for service of process in the State of Minnesota, J. W. SIFTON, St. Paul.

Amount of net or invested assets Dec. 31, previous year..... \$15, 340 61

## INCOME DURING 1888.

Membership fees.....	\$12, 475 00
Annual dues.....	11, 970 12
Assessments.....	48, 292 06
Medical examiners' fees.....	1, 650 00
Total income during the year.....	\$74, 387 18

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$45,953 35
Commissions and fees to agents.....	12,251 69
Salaries of managers and agents not paid by commissions.....	110 00
Salaries of officers and employes.....	3,738 55
Medical examiners' fees paid direct by members or otherwise.....	1,650 00
Rent, \$1,116.69; advertising and printing, \$5,942.01; total.....	7,058 70
All other items.....	731 24
Total disbursements.....	\$71,493 53

## INVESTED ASSETS.

Cash in office and in bank.....	\$18,234 26
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## CONTINGENT MORTUARY ASSETS.

Mortuary assessments called and not yet due.....	\$12,605 00
Premiums unpaid.....	38,230 59
Net amount due from members.....	\$50,835 59

## CONTINGENT MORTUARY LIABILITIES.

Losses due and unpaid.....	\$60,000 00
Losses in process of adjustment.....	6,700 00
Losses reported.....	49,000 00
Losses resisted.....	3,000 00
Total contingent liabilities.....	\$118,700 00

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.	
	Number.	Amount.
Policies or certificates in force Dec. 31, 1887.....	2,678	\$7,196,000
Policies or certificates written during the year 1888.....	2,195	5,167,000
Total.....	4,873	\$12,363,000
Deduct number ceased to be in force during 1888.....	414	1,197,000
Total policies in force Dec. 31, 1888.....	4,459	\$11,166,000
Policies or certificates terminated by death in 1888.....	49	\$150,000
Policies or certificates terminated by lapse in 1888.....	365	\$1,047,000



## NATIONAL BENEVOLENT ASSOCIATION.

Principal Office.....Minneapolis, Minn.

(Organized March 31, 1887. Commenced business March 31, 1887.)

P. B. CRANE, *President*.C. H. MERO, *Secretary*.

Amount of net or invested assets Dec. 31, previous year.....\$1,041 80

## INCOME DURING 1888.

Membership fees.....	\$22,344 00
Assessments—mortuary .....	6,664 90
Medical examiners' fees (estimated).....	3,001 00
Interest.....	6 51
Received from all other sources.....	401 60
Total income during the year.....	\$32,418 01

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$6,812 20
Advance payments returned to rejected applicants.....	175 00
Commissions and fees to agents.....	19,372 75
Salaries of managers and agents not paid by commissions. ....	299 31
Salaries of officers.....	750 00
Salaries and other compensation of office employees.....	160 00
Medical examiners' fees paid direct by members or otherwise.....	3,176 00
Rent, \$270.00; advertising and printing, \$394.00; total.....	664 00
All other items.....	1,146 65
Total disbursements.....	\$32,555 31

## INVESTED ASSETS.

Agents' ledger balances.....	\$698 00.
Cash in office and bank.....	206 50
Total invested assets.....	\$904 50

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments reported.....	\$4,734 00
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## CONTINGENT MORTUARY LIABILITIES.

Losses reported (number of claims, 3).....	\$4,734 00
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## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	\$6,307 00
Assessments.....	2,679 50
Medical examiners' fees.....	679 00
Total income during the year.....	\$9,665 50

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Losses and claims (number of claims, 2).....	\$3,826 00
Commissions and fees to agents.....	5,406 00
Salaries and traveling expenses of agents.....	1,209 31
Medical examiners' fees.....	854 00
Rent, \$270.00; taxes, \$1,540.05; total.....	1,810 05
Total disbursements in Minnesota.....	\$13,105 36

## EXHIBITS OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887...	929	\$2,322,500	238	\$579,000
Policies or certificates written during the year 1888.....	3,156	7,890,000	663	\$1,657,500
Total.....	4,085	\$10,212,500	901	\$2,252,500
Deduct number ceased to be in force during 1888 .....	221	552,500	65	162,500
Total policies in force Dec. 31, 1888.....	3,864	\$9,660,000	836	\$2,090,000
Policies or certificates terminated by death in 1888 .....	9	\$22,500	2	\$5,000
Policies or certificates terminated by lapse in 1888.....	212	\$530,000	63	\$157,500

## NATIONAL LIFE ASSOCIATION.

Principal Office.....Hartford, Conn.

(Organized Feb. 28, 1888. Commenced business March 26, 1888.)

O. H. BLANCHARD, *President.*E. C. SMITH, *Secretary*

Attorney for service of process in the State of Minnesota, INSURANCE COMMISSIONER.

Amount of net or invested assets March 26, previous year.....	\$55,054 00
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## INCOME DURING 1888.

Annual dues.....	\$4,840 83
Assessments.....	30,945 21
Medical examiners' fees.....	12 00
Interest.....	3,673 24
Received from all other sources.....	298 29
Total income during the year.....	\$39,769 57

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$6,200 00
Advance payments returned to members.....	33 27
Commissions and fees to agents.....	4,232 30
Managers and special agents traveling expenses.....	1,454 22
Salaries of officers.....	1,683 40
Salaries and other compensation of office employes.....	848 17
Medical examiners' fees paid direct by members or otherwise.....	576 32
Rent, \$272.53; advertising and printing, \$1,287.61; total.....	1,560 14
All other items.....	1,326 71
Total disbursements.....	\$17,914 53

## INVESTED ASSETS.

Premium liens on policies in force.....	\$177,482 72
Loans secured by mortgages on real estate, first liens.....	59,718 54
Collateral loans.....	6,684 42
Stocks and bonds owned absolutely, market value.....	1,000 00
Agents' ledger balances secured.....	785 14
Cash in office, \$2,820.84; in bank, \$4,434.90; total.....	7,255 74
Interest accrued.....	918 57
Other assets.....	1,465 20
Total invested assets.....	\$255,310 33

## EXHIBIT OF CERTIFICATE OR POLICIES.

	TOTAL BUSINESS.	
	Number.	Amount.
Policies or certificates in force March 26, 1887.....	919	\$1,244,350
Policies or certificates written during the year 1888 .....	363	457,750
Total .....	1,282	\$1,702,100
Deduct number ceased to be in force during 1888.....	149	\$160,200
Total policies in force Dec. 31, 1888.....	1,133	\$1,541,900
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	3	\$2,600
Losses and claims on policies or certificates incurred during the year 1888 .....	4	3,600
Total .....	7	\$6,200
Losses and claims on policies or certificates paid during the year 1888...	7	\$6,200
Policies or certificates terminated by death in 1888 .....	4	\$3,600
Policies or certificates terminated by lapse in 1888 .....	145	\$156,600

## NATIONAL LIFE AND MATURITY ASSOCIATION.

Principal Office. .... Washington, D. C.

(Organized Feb. 2, 1884. Commenced business May 2, 1884.)

HORATIO BROWNING, *President.*G. D. ELDRIDGE, *Secretary.*Attorney for service of process in the State of Minnesota, INSURANCE COMMISSIONER  
St. Paul.

Amount of net or invested assets Dec. 31, previous year..... \$302,771 83

## INCOME DURING 1888.

Membership fees.....	\$5,871 50
Annual dues.....	23,788 40
Assessments—mortuary .....	172,040 76
Medical examiners' fees.....	1,932 00
Interest, \$7,931.66; rent, \$1,922.30; total.....	9,903 96
Received from all other sources.....	3 46
Total income during the year.....	\$218,535 08

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$217,600 00
Surrender values and sick benefits.....	77,035 42
Commissions and fees to agents.....	6,898 27
Salaries of managers and agents not paid by commissions.....	20,489 94
Salaries and other compensation of office employees.....	10,719 31
Medical examiners' fees paid direct by members or otherwise.....	2,091 00
Rent, taxes, advertising and printing.....	11,121 16
All other items.....	2,049 08
Total disbursements.....	<u>\$348,004 18</u>

## INVESTED ASSETS.

Real estate, unincumbered, market value.....	\$40,263 81
Collateral loans.....	55,070 34
Stocks and bonds owned absolutely, market value.....	29,428 73
Agents' ledger balances.....	1,394 15
Cash in office and in bank.....	42,145 20
Interest accrued.....	250 00
Rents accrued.....	35 50
Total invested assets.....	<u>\$168,587 73</u>

## CONTINGENT MORTUARY ASSETS.

Net amount due from members.....	\$16,457 40
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## CONTINGENT MORTUARY LIABILITIES.

Losses adjusted, not yet due (number of claims, 2).....	\$8,000 00
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## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	\$464 00
Annual dues.....	151 00
Assessments.....	528 35
Medical examiners' fees.....	336 00
Total income during the year.....	<u>\$1,479 35</u>

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Commissions and fees to agents.....	\$464 00
Salaries and traveling expenses of agents.....	1,209 13
Medical examiners' fees.....	336 00
All other items.....	35 00
Total disbursements in Minnesota.....	<u>\$2,044 13</u>



## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNE-SOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887....	1,699	\$2,268,600	.....	.....
Policies or certificates written during the year 1888.....	1,101	1,712,000	168	\$214,000
Total.....	2,800	\$3,980,600	168	\$214,000
Deduct number ceased to be in force during 1888.....	948	1,367,600	19	34,000
Total policies in force Dec. 31, 1888.....	1,752	\$2,613,000	149	\$180,000
Losses and claims on policies or certificates incurred during the year 1888.....	17	\$21,100	.....	.....
Losses and claims on policies or certificates paid during the year 1888.....	15	\$13,100	.....	.....
Policies or certificates terminated by death in 1888 .....	17	\$21,100	.....	.....
Policies or certificates terminated by lapse in 1888.....	524	\$916,600	19	\$34,000

## NEW ENGLAND MUTUAL ACCIDENT ASSOCIATION.

Principal Office.....Boston, Mass.

(Organized Feb. 29, 1884. Commenced business March, 1884.)

A. P. MARTIN, *President*.BENJ. F. DYER, *Secretary*.

Attorney for service of process in the State of Minnesota, E. S. CHITTENDEN, St. Paul.

Amount of net or invested assets Dec. 31, previous year..... \$19,146 71

## INCOME DURING 1888.

Membership fees.....	\$38,863 00
Annual dues.....	24,185 50
Assessments — mortuary, \$48,922.95; expenses, \$7,633.30; total.....	56,556 25
Medical examiners' fees.....	10 25
Interest.....	400 00
Total income during the year.....	<u>\$120,015 00</u>

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$41,731 98
Advance payments returned to rejected applicants .....	435 00
Commissions and fees to agents.....	37,951 80
Commissions paid or allowed for collecting assessments.....	2,673 97
Salaries of officers, \$4,450.02; other compensation of officers, \$388.00; total.....	4,838 02
Salaries and other compensation of office employes.....	8,575 77
Medical examiners' fees paid direct by members or otherwise.....	5,711 41
Rent, \$2,531.14; taxes, \$515.05; advertising and printing, \$2,316 81; total.....	5,363 00
All other items.....	4,443 95
Total disbursements.....	<u>\$111,724 90</u>

## INVESTED ASSETS.

Stocks and bonds owned absolutely, market value.....	\$20,054 38
Cash in office, \$250.06; in bank, \$4,867.19; total.....	5,117 25
Interest accrued.....	80 00
Other assets.....	2,664 79
Total invested assets.....	<u>\$27,916 42</u>

## LIABILITIES.

Taxes due and accrued.....	\$25 00
Salaries, rents and office expenses due and accrued.....	748 21
Advance assessments.....	1,244 50
All other (not including contingent mortuary) .....	500 00
Total actual liabilities.....	<u>\$2,517 71</u>

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments called and not yet due.....	\$4,526 00
Mortuary assessments not yet called for losses resisted, \$7,485.84; reported, \$3,914 50; total.....	11,400 34
Total due from members.....	<u>\$15,926 34</u>

## CONTINGENT MORTUARY LIABILITIES.

Losses reported (number of claims, 63).....	\$3,914 50
Losses resisted (number of claims, 7).....	15,500 00
Total contingent liabilities.....	<u>\$19,414 50</u>

## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	\$580 00
Annual dues.....	421 00
Assessments.....	900 00
Total income during the year.....	<u>\$1,901 00</u>

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Losses and claims (number of claims, 6).....	\$503 57
Commissions and fees to agents.....	626 00
Medical examiners' fees.....	17 00
All other items.....	11 00
Total disbursements in Minnesota .....	<u>\$1,157 57</u>

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887...	7,227	\$24,879,625	125	\$542,000
Policies or certificates written during the year 1888.....	7,809	22,170,000	116	530,750
Total.....	15,036	\$47,049,625	241	\$1,072,750
Deduct number ceased to be in force during 1888.....	8,092	20,232,000	128	540,000
Total policies in force Dec. 31, 1888.....	6,944	\$26,797,625	113	\$532,750
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	3	15,000.00		
Losses and claims on policies or certificates incurred during the year 1888.....	803	42,231.98	6	
Total.....	806	\$57,231.98	6	\$503.87
Losses and claims on policies or certificates paid during the year 1888.....	799	\$41,731.98	6	\$503.87
Policies or certificates terminated by death in 1888.....	9	\$15,700.00		
Policies or certificates terminated by lapse in 1888.....	8,083	\$20,236,500	128	\$540,000

## NEW ENGLAND MUTUAL AID SOCIETY.

Principal Office.....Boston, Mass.

(Organized Feb. 29, 1884. Commenced business March, 1884.)

AUGUSTUS P. MARTIN, *President*.BENJ. F. DYER, *Secretary*.

Attorney for service of process in the State of Minnesota, E. S. CHITTENDEN, St. Paul.

Amount of net or invested assets Dec. 31, previous year..... \$40,955 58.

## INCOME DURING 1888.

Membership fees.....	\$2,095 32
Annual dues.....	7,644 55
Assessments—mortality.....	115,006 87
Interest.....	675 56
Total income during the year.....	\$125,422 30

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$130,452 06
Advance payments returned to rejected applicants .....	41 94
Commissions and fees to agents .....	1,914 44
Commissions paid or allowed for collecting assessments.....	180 50
Salaries of officers, \$2,499.94; other compensation of officers, \$388.00; total .....	2,887 94
Salaries and other compensation of office employes.....	2,158 58
Medical examiners' fees paid direct by members or otherwise.....	469 00
Rent, \$666.01; taxes, \$133.75; advertising and printing, \$540.16; total.....	1,339 92
All other items.....	1,118 51
Total disbursements .....	\$140,562 89

## INVESTED ASSETS.

Stocks and bonds owned absolutely, market value.....	\$20,644 37
Cash in office, \$201.91; in bank, \$4,805.85; total .....	5,007 76
Interest accrued.....	120 00
Other assets.....	393 13
Total invested assets.....	\$26,165 26

## LIABILITIES.

Salaries, rents and office expenses due and accrued.....	\$186 54
Advance assessments.....	356 30
All other (not including contingent mortality) .....	1,600 00
Total actual liabilities .....	\$2,042 84



## INSURANCE COMMISSIONER.

807

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments called and not yet due.....	\$772 30
Mortuary assessments due and unpaid.....	3,589 78
Mortuary assessments not yet called for losses unadjusted, \$5,986.46; reported, \$3,000.00; total.....	<u>8,986 46</u>
Net amount due from members.....	\$13,348 54

## CONTINGENT MORTUARY LIABILITIES.

Losses in process of adjustment (number of claims, 3).....	\$15,000 00
Losses reported.....	<u>3,000 00</u>
Total contingent liabilities.....	\$18,000 00

## INCOME DURING 1888 IN MINNESOTA.

Annual dues.....	\$24 00
Assessments .....	<u>66 70</u>
Total income during the year.....	\$90 70

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

All other items.....	\$11 00
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## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887...	1,910	\$6,534,000.00	4	\$10,000.00
Policies or certificates written during the year 1888.....	170	339,000.00		
Total.....	2,080	\$6,873,000.00	4	\$10,000.00
Deduct number ceased to be in force during 1888 .....	292	972,000.00	1	2,000.00
Total policies in force Dec. 31, 1888.....	1,788	\$5,901,000.00	3	\$8,000.00
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	8	33,202.06		
Losses and claims on policies or certificates incurred during the year 1888.....	34	115,250.00		
Total .....	42	\$148,452.06		
Losses and claims on policies or certificates paid during the year 1888.....	38	\$120,452.06		
Policies or certificates terminated by death in 1888.....	34	\$119,000.00		
Policies or certificates terminated by lapse in 1888 .....	258	\$853,000.00	1	\$2,000.00

## NEW ENGLAND RELIEF ASSOCIATION.

Principal Office ..... Boston, Mass.

(Organized July 6, 1881. Commenced business July 16, 1881.)

STILLMAN B. ALLEN, *President.*JOSEPH A. TORREY, *Secretary.*

Attorney for service of process in the State of Minnesota, CHARLES SHANDREW, St. Paul.

Amount of net or invested assets Dec. 31, previous year.....	\$22,163 95
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## INCOME DURING 1888.

Membership fees.....	\$4,435 80
Annual dues .....	10,903 65
Assessments — mortuary.....	117,921 17
Medical examiners' fees.....	880 00
Total income during the year.....	\$134,140 62

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$113,000 00
Commissions and fees to agents.....	4,610 67
Commissions paid or allowed for collecting assessments.....	895 49
Salaries of managers and agents not paid by commissions.....	226 22
Salaries of officers.....	3,975 00
Salaries and other compensation of office employes.....	1,979 00
Medical examiners' fees paid direct by members or otherwise.....	983 25
Rent, \$411.00; advertising and printing, \$1,130.00; total.....	1,541 00
All other items.....	2,421 34
Total disbursements.....	\$129,631 97

## INVESTED ASSETS.

Stocks and bonds owned absolutely, market value.....	\$11,426 00
Cash in office and in bank .....	13,582 93
Mortuary fund .....	1,683 67
Total invested assets.....	\$26,692 60

## CONTINGENT MORTUARY LIABILITIES.

Losses adjusted, not yet due (number of claims, 4).....	\$15,000 00
Losses resisted (number of claims, 2).....	8,000 00
Total contingent liabilities.....	\$23,000 00

## INCOME DURING 1888 IN MINNESOTA.

Annual dues.....	\$59 50
Assessments.....	432 35
Medical examiners' fees.....	18 00
Total income during the year.....	<u>\$509 85</u>

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Losses and claims (number of claims, 1).....	\$2,000 00
Commissions and fees to agents .....	89 00
Medical examiners' fees.....	20 25
Total disbursements in Minnesota.....	<u>\$2,109 25</u>

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887.....	3,028	\$7,913,000	7	\$16,000
Policies or certificates written during the year 1888 .....	440	770,000	9	16,000
Total.....	3,468	\$8,683,000	16	\$32,000
Deduct number ceased to be in force during 1883 .....	430	\$977,000	7	\$11,000
Total policies in force Dec. 31, 1888.....	3,038	\$7,706,000	9	\$21,000
Losses and claims on policies or certificates unpaid Dec. 31, 1887 .....	11	\$29,800		
Losses and claims on policies or certificates incurred during the year 1888.....	36	106,200	1	\$2,000
Total.....	47	\$136,000	1	\$2,000
Losses and claims on policies or certificates paid during the year 1888.....	41	\$113,000	1	\$2,000
Policies or certificates terminated by death in 1888 .....	36	\$106,000	1	\$2,000
Policies or certificates terminated by lapse in 1888 .....	393	\$871,000	6	\$9,000

## NORTHWESTERN AID ASSOCIATION.

Principal Office.....Minneapolis, Minn.

(Organized Sept 15, 1885. Commenced business Sept. 15, 1885.)

D. W. EDWARDS, *President*.DR. J. F. FORCE, *Secretary*.

Amount of net or invested assets Dec. 31, previous year..... \$21, 179 09

## INCOME DURING 1888.

Membership fees.....	\$87 05
Annual dues.....	10, 336 00
Assessments — mortuary and otherwise.....	29, 123 81
Interest.....	281 39
Received from all other sources, viz.: from directors.....	6, 843 99
Total income during the year.....	\$46, 672 24

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$14, 422 55
Commissions paid or allowed for collecting assessments.....	1, 195 23
Salaries of managers and agents not paid by commissions.....	812 11
Salaries of officers.....	9, 422 07
Salaries and other compensation of office employees.....	1, 365 25
Rent, advertising and printing.....	2, 050 29
Advanced to officers and agents, to be repaid out of salaries or commissions.....	42 00
All other items.....	9, 055 74
Total disbursements.....	\$38, 365 24

## INVESTED ASSETS.

Loans secured by mortgages on real estate, first liens.....	\$15, 025 00
Stocks and bonds owned absolutely, market value.....	7, 000 00
Cash in office and in bank.....	4, 197 90
Interest due, \$467.25; accrued, \$164.34; total.....	3, 263 19
Rents due.....	631 59
Total invested assets.....	\$30, 117 68

## LIABILITIES.

Taxes due and accrued.....	\$18 60
Salaries, rents and office expenses due and accrued.....	2, 564 92
Borrowed money.....	7, 107 89
Total actual liabilities.....	\$9, 691 41

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments due and unpaid.....	\$14, 759 06
Deduct cost of collection.....	1, 475 90
Net amount due from members.....	\$13, 283 16



## CONTINGENT MORTUARY LIABILITIES.

Losses adjusted, not yet due (number of claims, 5).....	\$8,500 00
Losses resisted (number of claims, 1).....	1,685 00
Total contingent liabilities.....	\$10,185 00

## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	\$54 15
Annual dues.....	7,270 00
Assessments.....	16,442 70
Interest.....	231 89
Received from all other sources.....	213 53
Total income during the year.....	\$24,261 79

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Losses and claims (number of claims, 5).....	\$6,568 75
Salaries and traveling expenses of agents.....	10,687 32
Rent.....	696 81
All other items.....	2,977 65
Total disbursements in Minnesota.....	20,930 53

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887.....	2,552	\$5,026,000.00	1,774	\$3,338,000.00
Policies or certificates during the year 1888.....	1,240	2,088,500.00	1,041	1,795,000.00
Total .....	3,792	\$7,114,500.00	2,815	\$5,133,000.00
Deduct number ceased to be in force during 1888 .....	705	1,323,500.00	579	1,060,500.00
Total policies in force Dec. 31, 1888 .....	3,087	\$5,791,000.00	2,236	\$4,072,500.00
Losses and claims on policies or certificates unpaid Dec. 31st, 1887.....	6	\$10,185.00	5	\$8,185.00
Losses and claims on policies or certificates incurred during the year 1888. ....	11	\$23,000.00	6	\$9,000.00
Total losses in 1888 .....	11	\$23,000.00	6	\$9,000.00
Losses and claims on policies or certificates paid during the year 1888.....	12	\$14,422.55	5	\$6,568.75
Policies or certificates terminated by death in 1888 .....	11	\$23,000.00	6	\$9,000.00
Policies or certificates terminated by lapse in 1888 .....	694	\$1,300,500.00	573	\$1,515,000.00

# NORTHWESTERN ENDOWMENT AND LEGACY ASSOCIATION.

Principal Office.....Red Wing, Minn.

(Organized Aug. 11, 1887. Commenced business Aug. 15, 1887.)

H. B. WILSON, *President*.

A. J. MEACHAM, *Secretary*.

Attorney for service of process in the State of Minnesota, INSURANCE COMMISSIONER.

Amount of net or invested assets Dec. 31, previous year.....\$21,190 95

## INCOME DURING 1888.

Membership fees.....	\$4,479 00
Annual dues.....	4,310 00
Assessments—mortuary, \$37,731.00; expense, \$7,563.55; total.....	45,294 55
Medical examiners' fees.....	714 00
Interest.....	1,249 86
<b>Total income during the year.....</b>	<b>\$56,047 41</b>

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$28,161 30
Commissions and fees to agents.....	4,092 50
Commissions paid or allowed for collecting assessments.....	1,644 85
Salaries of managers and agents not paid by commissions.....	1,697 00
Salaries of officers; other compensation of officers.....	2,300 00
Salaries and other compensation of office employees.....	520 00
Medical examiners' fees paid direct by members or otherwise.....	836 05
Rent, \$324.00; advertising and printing, \$586.93; total.....	910 93
All other items.....	962 75
<b>Total disbursements.....</b>	<b>\$41,125 38</b>

## INVESTED ASSETS.

Furniture and fixtures.....	\$556 75
Loans secured by mortgages on real estate, first liens, endowment fund.....	19,876 22
Collateral loans, endowment fund.....	6,400 00
Stocks and bonds owned absolutely, market value, endowment fund.....	2,015 00
Agents' ledger balances.....	275 91
Cash in office, \$1,533.07; in bank, \$5,471.03; total.....	7,004 10
Interest due, \$477.00 accrued, \$758.50; total.....	1,235 50
<b>Total invested assets.....</b>	<b>\$37,363 48</b>

## LIABILITIES.

• Advance assessments.....	\$605 35
<b>Total actual liabilities.....</b>	<b>\$605 35</b>

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments called and not yet due.....	\$4,176 00
Mortuary assessments due and unpaid.....	474 00
Mortuary assessments reported.....	4,128 00
Total due from members.....	\$8,778 00
Deduct cost of collection.....	1,384 00
Net amount due from members.....	\$7,394 00

## CONTINGENT MORTUARY LIABILITIES.

Losses adjusted, not yet due (number of claims, 3).....	\$3,500 00
Losses in process of adjustment (number of claims, 1).....	1,750 00
Losses resisted (number of claims, 2).....	500 00
Total contingent liabilities.....	\$5,750 00

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.	
	Number.	Amount.
Policies or certificates in force Dec. 31, 1887.....	2,461	\$3,913,775.00
Policies or certificates written during the year 1888.....	433	708,500.00
Total.....	2,894	\$4,622,275.00
Deduct number ceased to be in force during 1888.....	607	\$1,032,800.00
Total policies in force Dec. 31, 1888.....	2,287	\$3,589,475.00
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	6	5,500.00
Losses and claims on policies or certificates incurred during the year 1888.....	33	47,000.00
Total.....	39	\$52,500.00
Losses and claims on policies or certificates paid during the year 1888...	33	\$43,500 00
Policies or certificates terminated by death in 1888.....	33	\$47,000.00
Policies or certificates terminated by lapse in 1888.....	574	\$785,800 00

NOTE.— Business all in Minnesota.

# NORTHWESTERN GUARANTY LIFE INSURANCE COMPANY.

Principal Office.....St. Paul, Minn.

(Organized Aug. 26, 1885. Commenced business Aug. 27, 1885.)

W. W. BRADEN, *President.*

C. B. PALMER, *Secretary.*

Amount of net or invested assets Dec. 31, previous year.....\$8,275 55

## INCOME DURING 1888.

Membership fees .....	\$5,265 00
Annual dues.....	2,658 00
Assessments—mortuary.....	2,710 56
Medical examiners' fees.....	437 00
Interest, \$222.87; rent, \$15.00; total.....	237 87
Received from all other sources.....	11 49
<b>Total income during the year.....</b>	<b>\$11,319 92</b>

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$7,000 00
Commissions and fees to agents.....	2,454 75
Commissions paid or allowed for collecting assessments.....	27 10
Salaries of officers, \$923.17; other compensation of officers, \$59.87; total.....	983 04
Medical examiners' fees paid direct by members or otherwise.....	437 00
Rent, \$487.50; taxes, \$7.30; advertising and printing, \$85.93; total.....	580 73
Advanced to officers and agents, to be repaid out of salaries or commissions.....	238 66
All other items.....	931 84
<b>Total disbursements.....</b>	<b>\$12,653 12</b>

## INVESTED ASSETS.

Held by St. Paul Trust Company.....	\$2,300 00
Cash in office and in bank .....	3,802 35
Interest.....	85 96
<b>Total invested assets less \$238.66 depreciation .....</b>	<b>\$6,188 31</b>

## LIABILITIES.

Borrowed money, \$1,404.00; interest on same, \$75.00; total.....	\$1,479 11
All other (not including contingent mortuary).....	65 55
<b>Total actual liabilities.....</b>	<b>\$1,544 66</b>

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887.....	354	\$616, 000	.....	.....
Policies or certificates written during the year 1888.....	221	350, 000	.....	.....
Total.....	575	\$966, 000	.....	.....
Deduct number ceased to be in force during 1888.....	83	142, 000	.....	.....
Total policies in force Dec. 31, 1888.....	492	\$824, 000	.....	.....
Losses and claims on policies or certificates incurred during the year 1888.....	1	\$2, 000	.....	.....
Losses and claims on policies or certificates paid during the year 1888.....	1	\$2, 000	.....	.....
Policies or certificates terminated by death in 1888.....	1	\$2, 000	.....	.....
Policies or certificates terminated by lapse in 1888.....	82	\$140, 000	.....	.....

NOTE.—Business confined to Minnesota.

## NORTHERN LEGION OF HONOR.

Principal Office.....Minneapolis Minn.

(Organized Dec. 10, 1885. Commenced business Jan. 20, 1886.)

ELLIOTT N. GEER, *President.*EDWARD D. TITUS, *Secretary.*

Attorney for service of process in the State of Minnesota, EDWARD D. TITUS, Minneapolis.

Amount of net or invested assets Dec. 31, previous year..... \$1, 047 89

## INCOME DURING 1888.

Membership fees.....	\$440 50
Annual dues.....	608 95
Assessments — mortuary.....	3, 628 78
Medical examiners' fees.....	129 50
Received from all other sources.....	545 48
Total income during the year.....	\$5, 353 21



## INSURANCE COMMISSIONER.

817<sup>2</sup>

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$1,948 42
Advance payments returned to rejected applicants .....	4 25
Commissions and fees to agents.....	359 00
Salaries and other compensation of office employes.....	379 05
Medical examiners' fees paid direct by members or otherwise.....	104 00
Rent .....	96 00
All other items.....	928 09
Total disbursements.....	<u>\$3,818 81</u>

## INVESTED ASSETS.

Cash in office and in bank.....	\$1,903 97
Supplies.....	678 33
Total invested assets.....	<u>\$2,582 30</u>

## LIABILITIES.

Borrowed money.....	\$150 00
All other (not including contingent mortuary).....	1,256 41
Total actual liabilities .....	<u>\$1,406 41</u>

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments called and not yet due.....	\$1,000 00
Net amount due from members.....	<u>\$1,000 00</u>

## CONTINGENT MORTUARY LIABILITIES.

Losses in process of adjustment.....	\$320 00
Total contingent liabilities.....	<u>\$320 00</u>

## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	\$9 00
Annual dues.....	141 15
Assessments.....	635 65
Total income during the year.....	<u>\$785 80</u>

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Salaries and traveling expenses of agents.....	\$379 05
Medical examiners' fees.....	9 00
All other items.....	646 03
Total disbursements in Minnesota.....	<u>\$1,034 08</u>

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNE-SOTA.	
	Num-ber.	Amount.	Num-ber.	Amount.
Policies or certificates in force Dec. 31, 1887...	424	\$111,130.00	223	\$51,398.64
Policies or certificates written during the year 1888.....	715	358,411.00	83	39,840.00
Total.....	1,139	\$469,541.00	306	\$91,238.64
Deduct number ceased to be in force during 1888.....	156	74,880.00	46	12,080.00
Total policies in force Dec. 31, 1888.....	1,295	\$394,561.00	260	\$79,158.64
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	1	\$320.00		
Losses and claims on policies or certificates incurred during the year 1888.....	3	1,948.42		
Total.....	4	\$2,268.42		
Losses and claims on policies or certificates paid during the year 1888.....	13	\$1,948.42		
Policies or certificates terminated by death in 1888.....	4	\$2,268.42		
Policies or certificates terminated by lapse in 1888.....	152	\$72,611.58		

## NORTHWESTERN MASONIC AID ASSOCIATION.

Principal Office.....Chicago, Ill.

(Organized June 27, 1874. Commenced business July, 1874.)

DANIEL J. AVERY, *President*.JAMES A. STODDARD, *Secretary*.

Attorney for service of process in the State of Minnesota, W. E. BURTON, St Paul, Minn.

Amount of net or invested assets Dec. 31, previous year.....\$191,345 47

## INCOME DURING 1888.

Membership fees.....	\$94,598 00
Assessments—mortuary, \$1,001,414.33; expense, \$225,337.40; total.....	1,226,751 73
Interest.....	3,359 62
Received from all other sources.....	3,955 66
<b>Total income during the year.....</b>	<b>\$1,328,665 01</b>

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$989,102 08
Advance payments returned to rejected applicants.....	8,838 65
Commissions and fees to agents.....	67,138 90
Commissions paid or allowed for collecting assessments.....	5,568 28
Salaries of managers and agents not paid by commissions.....	3,891 83
Salaries of officers.....	42,494 20
Salaries and other compensation of office employees.....	49,327 81
Medical examiners' fees paid direct by members or otherwise.....	18,327 55
Rent, \$7,901.08; advertising and printing, \$6,863.08; total.....	14,764 16
All other items.....	42,596 52
<b>Total disbursements.....</b>	<b>\$1,242,049 98</b>

## INVESTED ASSETS.

Stocks and bonds owned absolutely, market value.....	\$108,818 75
Agents' ledger balances.....	1,890 40
Cash in office and with treasurer.....	172,251 35
Interest accrued.....	104 16
<b>Total invested assets.....</b>	<b>\$278,064 66</b>

## LIABILITIES.

Losses adjusted, due and unpaid.....	\$60,500 00
Losses resisted.....	7,500 00
Advance assessments.....	40,760 46
All other (not including contingent mortuary).....	1,049 06
<b>Total actual liabilities.....</b>	<b>\$109,809 52</b>

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments due and unpaid.....	\$10,000 00
Mortuary assessments not yet called for losses unadjusted, \$137,000.00; reported, \$134,000.00; total.....	271,000 00
<b>Net amount due from members.....</b>	<b>\$281,000 00</b>

## ANNUAL REPORT

## CONTINGENT MORTUARY LIABILITIES.

Losses in process of adjustment (number of claims, 47).....	\$137,000 00
Losses reported (number of claims 44).....	134,000 00
Total contingent liabilities.....	\$271,000 00

## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	\$5,072 00
Assessments.....	57,304 37
Total income during the year.....	\$62,376 37

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Losses and claims (number of claims, 11).....	\$38,500 00
Commissions and fees to agents.....	3,992 00
Medical examiners' fees.....	848 50
Total disbursements in Minnesota.....	\$43,340 50

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887.....	41,243	\$118,055,500	1,996	\$5,465,500
Policies or certificates written during the year 1888.....	8,906	22,667,000	592	1,485,000
Total.....	50,149	\$140,422,500	2,588	\$6,950,500
Deduct number ceased to be in force during 1888.....	3,108	9,174,000	206	577,000
Total policies in force Dec. 31, 1888.....	47,041	\$131,248,500	2,382	\$6,373,500
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	61	175,102.08	2	7,500
Losses and claims on policies or certificates incurred during the year 1888 .....	371	1,156,500.00	14	47,000
Total.....	432	\$1,331,602.08	16	\$54,500
Losses and claims on policies or certificates paid during the year 1888.....	321	\$992,602.08	11	\$38,500
Policies or certificates terminated by death in 1888.....	371	\$1,156,500.00	14	\$47,000
Policies or certificates terminated by lapse in 1888.....		\$8,017,500.00	192	\$530,000

## NORTHWESTERN MUTUAL ENDOWMENT SOCIETY.

Principal Office.....Minneapolis, Minn.

(Organized January, 1885. Commenced business January, 1885.)

C. B. WRIGHT, *President*.F. C. LAWRENCE, *Secretary*.

Attorney for service of process in the State of Minnesota, F. P. RUNDELL, Minneapolis.

Amount of net or invested assets Dec. 31, previous year.....	\$7,114 75
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## INCOME DURING 1888.

Membership fees.....	\$2,261 75
Annual dues.....	4,426 00
Assessments—endowment, \$65,029.60; expenses, \$16,257.40; total.....	81,287 00
Interest.....	189 95
Total income during the year.....	\$88,164 70

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$67,967 00
Payments returned to members with interest.....	2,415 01
Commissions and fees to agents.....	1,193 00
Salaries of managers and agents not paid by commissions.....	390 10
Salaries of officers, \$12,403.20; other compensation of officers, \$1,068.75; total.....	13,471 95
Salaries and other compensation of office employees.....	1,037 00
Rent, \$875.00; taxes, \$59.74; advertising and printing, \$4,032.80; total.....	4,967 54
All other items.....	1,565 75
Total disbursements.....	\$93,007 35

## INVESTED ASSETS.

Cash in office and in bank.....	2,272 10
Total invested assets.....	\$2,272 10

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments called and not yet due.....	\$5,928 75
Mortuary assessments reported .....	10,837 50
Net amount due from members .....	\$16,786 25

## CONTINGENT MORTUARY LIABILITIES.

Losses adjusted, not yet due (number of claims, 50).....	\$11,875 00
Total contingent liabilities.....	\$11,875 00



## ANNUAL REPORT

## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	\$203 00
Annual dues.....	1,628 00
Assessments .....	31,096 00
Interest .....	189 95
Total income during the year.....	\$33,116 95

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Losses and claims .....	\$49,320 00
Assessments returned to members.....	1,869 00
Commissions and fees to agents .....	347 00
Salaries and traveling expenses of agents.....	14,899 05
Rent.....	875 00
All other items.....	5,658 29
Total disbursements in Minnesota .....	\$72,968 34

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887....	1,434		574	
Policies or certificates written during the year				
1888 .....	781		57	
Total.....	2,165		631	
Deduct number ceased to be in force during				
1888 .....	1,050		212	
Total policies in force Dec. 31, 1888.....	1,115		419	
Losses and claims on policies or certificates				
unpaid Dec. 31, 1887.....	12		8	
Losses and claims on policies or certificates				
incurred during the year 1888.....	162		115	
Total.....	174		123	
Losses and claims on policies or certificates				
paid during the year 1888.....	124	\$67,967	90	\$49,320.00
Policies or certificates terminated by death in				
1888.....				
Policies or certificates terminated by lapse in				
1888 .....	1,050		212	

## PEOPLES MUTUAL BENEFIT SOCIETY.

Principal Office.....Elkhart, Ind.

(Commenced business Dec. 19, 1883.)

C. F. MOSIER, *President.*O. N. LUMBERT, *Secretary.*

Attorney for service of process in the State of Minnesota, F. M. WILSON, Red Wing.

Amount of net or invested assets Dec. 31, previous year.....\$8,970 84

## INCOME DURING 1888.

Membership fees.....	\$7,737 34
Assessments — mortuary, \$283,163.55; expense, \$72,040.89.....	360,204 44
Received from all other sources.....	45 60
Total income during the year.....	\$367,987 38

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$287,051 72
Commissions and fees to agents.....	4,822 17
Commissions paid or allowed for collecting assessments.....	7,032 80
Salaries of managers and agents not paid by commissions .....	13,840 22
Salaries and other compensation of officers.....	17,037 15
Salaries and other compensation of office employees.....	10,750 22
Medical examiners' fees paid direct by members or otherwise .....	6,501 00
Rent, taxes, advertising and printing.....	5,393 09
All other items.....	14,501 93
Total disbursements .....	\$366,935 30

## INVESTED ASSETS.

Cash in bank.....\$10,022 12

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments called and not yet due.....	\$450 00
Mortuary assessments not yet called for losses unadjusted.....	66,020 10
Total due from members.....	\$66,470 10
Deduct cost of collection.....	1,994 10
Net amount due from members.....	\$64,476 00

## CONTINGENT MORTUARY LIABILITIES.

Losses in process of adjustment (number of claims, 101).....	\$55,550 00
Losses resisted (number of claims, 26).....	11,550 00
Total contingent liabilities.....	\$67,100 00

## ANNUAL REPORT

## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	\$349 65
Assessments.....	24,885 22
Total income.....	\$25,234 87

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Losses and claims (number of claims, 31).....	\$12,609 25
Commissions and fees to agents.....	862 15
Salaries and traveling expenses of agents.....	513 75
Medical examiners' fees.....	387 50
Rent, \$132.00; taxes, \$188.65; total.....	320 65
Total disbursements in Minnesota.....	\$14,643 30

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNE- SOTA.	
	Number.	Amount. Shares.	Number.	Amount. Shares.
Policies or certificates in force Dec. 31, 1887...	9,457	33,149	909	3,960
Policies or certificates written during the year				
1888.....	3,785	15,148	225	900
Total.....	13,242	43,297	1,134	4,860
Deduct number ceased to be in force during				
1888.....	2,679	10,716	199	796
Total policies in force Dec. 31, 1888.....	10,563	37,581	935	.....
Losses and claims on policies or certificates				
unpaid Dec. 31, 1887.....	73	\$229	2	\$6
Losses and claims on policies or certificates				
incurred during the year 1888.....	649	2,596	35	\$140
Total .....	722	\$2,973	37	\$146
Losses and claims on policies or certificates				
paid during the year 1888.....	604	\$281,051	30	\$12,609
Policies or certificates terminated by death in				
1888.....	649	\$2,596	35	\$140
Policies or certificates terminated by lapse in				
1888.....	2,030	\$7,896	164	\$756

## PRAIRIE STATE BENEFICIARY ASSOCIATION.

Principal Office.....Peoria, Ill.

(Organized April 5, 1887. Commenced business April 25, 1887.)

CHARLES E. ELRICH, *President.*ISIDORE MAUTZ, *Secretary.*

Attorney for service of process in the State of Minnesota, CHARLES SHANDREW, St. Paul.

Amount of net invested assets Dec. 31, previous year.....	\$812 07
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## INCOME DURING 1888.

Membership fees .....	\$1,080 00
Annual dues .....	1,909 00
Assessments—mortuary and otherwise.....	5,094 63
Medical examiners' fees.....	1,080 00
Received from all other sources.....	630 15
Total income during the year.....	\$9,793 78

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$2,006 00
Commissions and fees to agents .....	1,080 00
Commissions paid or allowed for collecting assessments.....	44 41
Salaries of managers and agents not paid by commissions.....	1,259 66
Salaries and other compensation of office employees.....	786 22
Medical examiners' fees paid direct by members or otherwise.....	1,080 00
Rent, \$100.00; advertising and printing, \$673.37; total.....	773 37
All other items .....	739 87
Total disbursements.....	\$7,769 53

## INVESTED ASSETS.

Cash in office, \$706.56; in bank, \$2,129.76; total.....	\$2,836 32
Total invested assets.....	\$2,836 32

## LIABILITIES.

Borrowed money.....	\$829 65
Total actual liabilities.....	\$829 65

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments called and not yet due.....	\$2,500 00
Total due from members.....	\$2,500 00
Deduct cost of collection.....	250 00
Net amount due from members.....	\$2,250 00

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.	
	Number.	Amount.
Policies or certificates in force Dec. 31, 1887.....	371	\$574, 000
Policies or certificates written during the year 1888.....	1, 080	1, 251, 000
Total.....	1, 451	\$1, 825, 000
Deduct number ceased to be in force during 1888.....	470	526, 000
Total policies in force Dec. 31, 1888.....	981	\$1, 299 000
Losses and claims on policies or certificates incurred during the year 1888, death and accident.....		\$2, 006
Total.....		\$2, 006
Losses and claims on policies or certificates paid during the year 1888	43	\$2, 006
Policies or certificates terminated by death in 1888.....	5	\$5, 000
Policies or certificates terminated by lapse in 1888.....	465	\$5, 260

## PROVIDENT FUND SOCIETY.

Principal Office.....New York City.

(Organized May 1, 1886. Commenced business Sept. 15, 1886.)

A. N. LOCKWOOD, *President.*W. W. DODGE, *Secretary.*

Attorney for service of process in the State of Minnesota, CHARLES SHANDREW, St. Paul.

Amount of net or invested assets Dec. 31, previous year..... \$2, 945 85

## INCOME DURING 1888.

Membership fees.....	\$52, 293 00
Annual dues.....	7, 023 28
Assessments .....	14, 163 80
Total income during the year.....	\$73, 480 08

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$12, 686 8
Commissions and fees to agents.....	49, 990 90
Commissions paid or allowed for collecting assessments.....	9, 749 18
Medical examiners' fees paid direct by members or otherwise.....	936 30
Total disbursements.....	\$73, 363 27



## INSURANCE COMMISSIONER.

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## INVESTED ASSETS.

Cash in office and in bank.....	\$3,042 66
Total invested assets.....	\$3,042 66

## CONTINGENT MORTUARY ASSETS.

Assessments called and not yet due.....	\$13,698 00
Net amount due from members.....	\$13,698 00

## CONTINGENT MORTUARY LIABILITIES.

Losses in process of adjustment (number of claims, 150).....	\$4,826 07
Total contingent liabilities.....	\$4,826 07

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887...	1,112	\$3,677,725	.....	.....
Policies or certificates written during the year 1888.....	10,670	26,022,925	211	\$713,500
Total.....	11,782	\$29,700,650	211	\$713,500
Deduct number ceased to be in force during 1888.....	4,933	10,324,275	67	124,750
Total policies in force Dec. 31, 1888. ....	6,849	\$19,376,375	144	\$588,750
Losses and claims on policies or certificates incurred during the year 1888.....	150	\$4,826.07	3	\$5,250
Total ..	150	\$4,826.07	3	\$5,250
Losses and claims on policies or certificates paid during the year 1888.....	393	\$12,616.80	2	\$3,288
Policies or certificates terminated by death in 1888.....	2	\$5,250.00	.....	.....
Policies or certificates terminated by lapse in 1888.....	4,931	\$10,319,025.00	67	\$124,750

## SCANDINAVIAN MUTUAL AID ASSOCIATION.

Principal Office.....Galesburg, Ill.

(Organized Sept. 12, 1883. Commenced business Oct. 26, 1883.)

S. P. A. LINDAHL, *President.*NELS NELSON, *Secretary.*

Attorney for service of process in the State of Minnesota, J. E. OSBORN, North St. Paul.

Amount of net or invested assets Dec. 31, previous year.....	\$10,336 27
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## INCOME DURING 1888.

Membership fees.....	\$7,425 00
Assessments—mortuary, \$59,944.75; expenses, \$7,248.42; total .....	67,193 17
Interest.....	120 00
Received from all other sources.....	245 70
Total income during the year.....	\$74,983 87

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$55,700 00
Advance payments returned to rejected applicants.....	9 00
Commissions and fees to agents.....	5,559 50
Salaries of officers, \$2,600.00; other compensation of officers, \$246.35; total.....	2,846 35
Salaries and other compensation of office employees.....	1,791 75
Medical examiners' fees paid direct by members or otherwise.....	47 00
Rent, \$250.58; advertising and printing, \$614.59; total.....	865 17
All other items.....	2,748 81
Total disbursements.....	\$69,567 58

## INVESTED ASSETS.

Stocks and bonds owned absolutely, market value.....	\$10,160 00
Agents' ledger balances.....	993 18
Cash in office and in bank.....	4,599 38
Interest.....	80 00
Total invested assets.....	\$15,832 56

## LIABILITIES.

Losses adjusted, due and unpaid.....	\$359 70
Salaries, rents and office expenses due and accrued.....	751 84
Advance assessments.....	63 15
Total actual liabilities.....	\$1,174 69

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments, called and not yet due.....	\$4,503 90
Mortuary assessments not yet called for losses unadjusted, \$9,400.00; reported, \$12,000.00; total.....	21,400 00
Net amount due from members.....	\$25,903 90

## INSURANCE COMMISSIONER.

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## CONTINGENT MORTUARY LIABILITIES.

Losses adjusted, not yet due (number of claims, 4).....	\$4,500 00
Losses in process of adjustment (number of claims, 4).....	7,800 00
Losses reported (number of claims, 6).....	12,000 00
Total contingent liabilities.....	\$24,300 00

## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	\$777 00
Annual dues.....	1,008 55
Assessments.....	9,290 70
Total income during the year.....	\$11,076 25

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Losses and claims (number of claims, 10).....	\$14,500 00
Commissions and fees to agents.....	677 50
Total disbursements in Minnesota.....	\$15,177 50

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887.....	4,132	\$6,513,000	690	\$1,029,500
Policies or certificates written during the year 1888 .....	1,165	1,557,000	126	173,500
Total.....	5,297	\$8,070,000	816	\$1,203,000
Deduct number ceased to be in force during 1888 .....	266	\$441,000	67	\$95,000
Total policies in force Dec. 31, 1888 .....	5,031	\$7,629,000	749	\$1,108,000
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	10	\$15,500	3	\$4,000
Losses and claims on policies or certificates incurred during the year 1888.....	40	64,500	8	11,500
Total.....	50	\$80,000	11	\$15,500
Losses and claims on policies or certificates paid during the year 1888.....	36	\$55,700	10	\$14,500
Policies or certificates terminated by death in 1888.....	40	\$64,500	8	\$11,500
Policies or certificates terminated by lapse in 1888.....	226	\$376,500	59	\$83,500

## SOUTHERN TIER MASONIC RELIEF ASSOCIATION.

Principal Office.....Elmira, N. Y

(Organized April 8, 1868. Commenced business April 8, 1868.)

CHAUNCEY N. SHIPMAN, *President.*E. O. BEERS, *Secretary.*

Attorney for service of process in the State of Minnesota, N. A. SPENCER, St. Paul.

Amount of net or invested assets Dec. 31, previous year.....\$9,957 56

## INCOME DURING 1888.

Membership fees.....	\$1,250 00
Annual dues.....	9,040 00
Assessments—mortuary.....	125,298 69
Interest.....	543 00
Total income during the year.....	<u>\$136,131 69</u>

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$128,000 00
Payments returned to members.....	35 32
Commissions and fees to agents.....	1,786 00
Commissions paid or allowed for collecting assessments.....	1,580 49
Salary not paid by commissions.....	487 50
Salaries and other compensation of officers.....	2,126 52
Rent, advertising and printing.....	708 85
All other items .....	2,060 90
Total disbursements.....	<u>\$136,785 58</u>

## INVESTED ASSETS.

Stocks and bonds owned absolutely, market value.....	\$8,800 00
Cash in bank .....	503 67
Total invested assets.....	<u>\$9,303 67</u>

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments called and not yet due.....	\$7,289 44
Mortuary assessments not yet called for losses unadjusted.....	48,786 28
Total due from members.....	<u>\$56,075 72</u>
Deduct cost of collection.....	557 82
Net amount due from members.....	<u>\$55,517 90</u>

# INSURANCE COMMISSIONER.

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## CONTINGENT MORTUARY LIABILITIES.

Losses adjusted not yet due (number of claims, 3).....	\$7,000 00
Losses in process of adjustment (number of claims, 3) .....	7,000 00
Losses reported (number of claims, 17).....	33,000 00
Total contingent liabilities.....	<u>\$47,000 00</u>

## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	\$2 50
Annual dues.....	124 00
Assessments.....	1,734 36
Total income during the year.....	<u>\$1,860 86</u>

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Losses and claims (number of claims, 2).....	\$5,000 00
Commissions and fees to agents .....	37 63
Total disbursements in Minnesota.....	<u>\$5,037 63</u>

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887...	2,291	\$4,829,000	39	\$91,000
Policies or certificates written during the year 1888.....	562	975,000	2	4,000
Total .....	2,853	\$5,804,000	41	\$95,000
Deduct number ceased to be in force during 1888.....	334	685,000	10	24,500
Total policies in force Dec. 31, 1888.....	2,519	\$5,119,000	31	\$70,500
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	3	7,000		
Losses and claims on policies or certificates incurred during the year 1888.....	57	122,000	2	5,000
Total .....	60	\$129,000	2	\$5,000
Losses and claims on policies or certificates paid during the year 1888 .....			2	\$5,000
Policies or certificates terminated by death in 1888.....	57	\$122,000	2	\$5,000
Policies or certificates terminated by lapse in 1888.....	277	\$563,000	8	\$19,500



## SOUTHWESTERN MUTUAL BENEFIT ASSOCIATION.

Principal Office.....Marshalltown, Iowa.

(Organized Aug. 15, 1882. Commenced business Nov. 19, 1882.)

B. F. FREDERICK, *President*.H. S. HALBERT, *Secretary*.

Attorney for service of process in the State of Minnesota, E. E. COLLINS, St. Cloud.

Amount of net or invested assets Dec. 31, previous year.....\$16,729 80

## INCOME DURING 1888.

Membership fees .....	\$7,024 57
Annual dues.....	7,428 49
Assessments — mortuary.....	27,809 36
Medical examiners' fees.....	630 00
Interest, \$1,070.10; Rent, \$36.00; total.....	1,106 10
Advances to agents repaid.....	20 90
Received from all other sources.....	91 21
Total income during the year.....	\$44,110 63

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$18,670 49
Advance payments returned to rejected applicants.....	222 92
Commissions and fees to agents.....	1,587 25
Commissions paid or allowed for collecting assessments.....	1,227 97
Salaries of managers and agents not paid by commissions.....	4,167 21
Salaries and expenses of officers.....	3,391 76
Salaries and other compensation of office employes.....	934 00
Medical examiners' fees paid direct by members or otherwise.....	831 80
Rent and advertising.....	251 49
Advanced to officers and agents, to be repaid out of salaries or commissions.....	184 13
All other items.....	3,991 57
Total disbursements.....	\$35,460 59

## INVESTED ASSETS.

Loans secured by mortgages on real estate, first liens.....	\$20,875 00
Cash in office and in bank.....	4,504 84
Interest due, \$44.00; accrued, \$356.99; total.....	400 99
Promissory notes and interest.....	3,513 79
Total invested assets.....	\$29,294 62

## LIABILITIES.

Salaries, rents and office expenses due and accrued.....	\$328 00
Advance assessments.....	2,499 40
Total actual liabilities.....	\$2,827 40

## INSURANCE COMMISSIONER.

833<sup>2</sup>

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments called and not yet due.....	\$2,600 00
Deduct cost of collection.....	180 00
Net amount due from members.....	<u>\$2,420 00</u>

## CONTINGENT MORTUARY LIABILITIES.

Losses in process of adjustment (number of claims, 1; since paid).....	\$2,000 00
Losses reported (number of claims, 1).....	2,000 00
Total contingent liabilities.....	<u>\$4,000 00</u>

## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	\$47 50
Annual dues.....	130 00
Assessments.....	640 98
Medical examiners' fees.....	11 00
Total income during the year.....	<u>\$829 48</u>

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Commissions and fees to agents.....	\$86 00
Medical examiners' fees.....	11 00
Total disbursements in Minnesota.....	<u>\$97 00</u>

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA	
	Num- ber.	Amount.	Num- ber.	Amount.
Policies or certificates in force Dec. 31, 1887...	2,462	\$3,827,000	64	\$82,500
Policies or certificates written during the year 1888 .....	608	825,600	11	9,500
Total.....	3,070	\$4,652,000	75	\$92,000
Deduct number ceased to be in force during 1888 .....	591	\$880,000	22	\$19,000
Total policies in force Dec. 31, 1888.....	2,479	\$3,772,000	53	\$73,000
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	2	\$7,000	.....	.....
Losses and claims on policies or certificates incurred during the year 1888.....	10	19,000	.....	.....
Total.....	12	\$26,000	.....	.....
Losses and claims on policies or certificates paid during the year 1888.....	12	\$18,670	.....	.....
Policies or certificates terminated by death in 1888 .....	10	\$19,000	.....	.....
Policies or certificates terminated by lapse in 1888 .....	581	\$861,000	22	\$19,000

## TRAVELERS PREFERRED ACCIDENT ASSOCIATION.

Principal Office.....Chicago, Ill.

(Organized June 17, 1887. Commenced business July 1, 1887.)

J. B. LONG, *President.*J. R. STONE, *Secretary.*

Amount of net or invested assets Dec. 31, previous year.....	\$520 00
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## INCOME DURING 1888.

Membership fees.....	\$11,045 00
Annual dues.....	384 50
Assessments — indemnity, \$4,136; expense, \$2,978; total.....	7,114 00
Rent.....	280 00
Received from all other sources.....	3,816 25
Total income during the year.....	\$22,639 75

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$3,989 30
Commissions and fees to agents.....	10,604 50
Salaries of officers, \$3,530; other compensation of officers, \$205; total.....	3,735 00
Salaries and other compensation of office employes.....	401 14
Attorney fees.....	200 00
Rent, \$585.00; advertising and printing, \$1,225.22; total .....	1,810 22
All other items.....	1,642 89
Total disbursements.....	\$22,383 05

## INVESTED ASSETS.

Cash in office and in bank.....	\$776 70
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## LIABILITIES.

Losses adjusted, due and unpaid.....	\$25 00
Borrowed money.....	3,780 00
Advance assessments.....	97 00
Total actual liabilities.....	\$3,902 00

## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	\$195 00
Assessments .....	118 00
Total income during the year.....	\$313 00

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Commissions and fees to agents.....	\$165 00
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## ANNUAL REPORT

## EXHIBIT OF CERTIFICATES OR POLICIES

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887....	208	\$1,040,000 00		
Policies or certificates written during the year 1888.....	2,209		39	
Total.....	2,417	\$12,085,000 00	39	\$195,000 00
Deduct number ceased to be in force during 1888.....	515		1	
Total policies in force Dec. 31, 1888.....	1,902	\$9,510,000 00	38	\$190,000 00
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	1			
Losses and claims on policies or certificates incurred during the year 1888.....	60			
Total.....	60	\$4,014 30		
Losses and claims on policies or certificates paid during the year 1888.....	59	\$3,989 30		
Policies or certificates terminated by lapse in 1888.....	515	\$2,575,000 00	1	\$5,000 00



## U. B. MUTUAL AID SOCIETY OF PENNSYLVANIA.

Principal Office.....Lebanon, Pa.

(Organized March 11, 1869. Commenced business May 21, 1870. .

JOHN B. STEHMAN, *President.*J. B. HURSH, *Secretary.*

Attorney for sevice of process in the State of Minnesota, H. E. LONG, Duluth.

Amount of net or invested assets Dec. 31, previous year..... \$154,901 03

## INCOME DURING 1888.

Membership fees.....	\$9,448 00
Annual dues.....	23,075 75
Assessments—mortuary, \$431,237.37; expense, \$21,532.58; total.....	452,769 95
Interest, \$4,439.11; rent, \$845.16; total.....	5,284 27
Received from all other sources.....	270 12
Total income during the year.....	490,848 09

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$419,588 90
Advance payments returned to rejected applicants.....	2,784 10
Commissions and fees to agents.....	9,097 00
Commissions paid or allowed for collecting assessments.....	21,532 58
Salaries of managers and agents not paid by commissions.....	2,013 50
Salaries and other compensation of officers.....	9,983 20
Salaries and other compensation of office employes.....	4,961 10
Salaries of directors, law and traveling expenses.....	14,916 85
Rent, \$1,065.07; taxes, \$1,258.86; advertising and printing, \$1,818.12; total.....	4,142 05
All other items.....	4,068 45
Total disbursements.....	\$493,087 73

## INVESTED ASSETS.

Real estate, unincumbered, market value.....	\$60,000 00
Loans secured by mortgages on real estate, first liens.....	3,950 49
Secured accounts.....	39,615 07
Secured notes.....	9,858 54
Agents' ledger balances.....	10,302 58
Cash in office and in bank.....	19,640 19
Interest due and accrued.....	2,500 00
Rents due and accrued.....	184 00
Total invested assets.....	\$146,000 87

## LIABILITIES.

Losses adjusted, due and unpaid.....	\$2,500 00
All other (not including contingent mortuary).....	1,125 00
Total actual liabilities.....	\$3,625 00

## ANNUAL REPORT

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments called and not yet due.....	\$25,000 00
Mortuary assessments due and unpaid.....	10,000 00
Mortuary assessments not yet called for losses unadjusted, \$45,000, resisted, \$2,000; reported, \$10,000; total.....	57,000 00
Total due from members.....	<u>\$92,000 00</u>

## CONTINGENT MORTUARY LIABILITIES.

Losses adjusted not yet due.....	\$35,000 00
Losses in process of adjustment .....	45,000 00
Losses reported.....	10,000 00
Losses resisted.....	2,000 00
Total contingent liabilities.....	<u>\$92,000 00</u>

## INCOME DURING 1888 IN MINNESOTA.

Annual dues.....	\$299 00
Assessments .....	1,915 62
Total income during the year.....	<u>\$2,214 62</u>

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Losses and claims.....	\$1,500 00
Assessments returned to members.....	27 80
Salaries and traveling expenses of agents.....	120 00
Total disbursements in Minnesota.....	<u>\$1,647 80</u>

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNE-SOTA.	
	Num-ber.	Amount.	Num-ber.	Amount.
Policies or certificates in force Dec. 31, 1887...	7,040	\$10,375,000	90	\$80,000
Policies or certificates written during the year 1888.....	805	1,181,000	36	45,000
Total.....	7,845	\$11,556,000	126	\$125,000
Deduct number ceased to be in force during 1888.....	1,428	2,142,500	37	29,500
Total policies in force Dec. 31, 1888.....	6,417	\$9,413,500	89	\$95,500
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	91	\$133,500		
Losses and claims on policies or certificates incurred during the year 1888.....	261	\$388,000	3	\$2,500
Total.....	352	\$521,500	3	\$2,500
Losses and claims on policies or certificates paid during the year 1888.....	286	\$419,588	2	\$1,500

## UNITED STATES ACCIDENT ASSOCIATION.

Principal Office.....New York City

(Organized Nov. 3, 1887. Commenced business Nov. 3, 1887.)

CHARLES B. PEET, *President.*JAMES R. PITCHER, *Secretary.*

Attorney for service of process in State of Minnesota, FRANCIS M. WHEELER, St. Paul.

Amount of net or invested assets, Dec. 31, previous year.....	\$51,011 06
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## INCOME DURING 1888.

Membership fees.....	\$160,230 00
Annual dues.....	48,767 00
Assessments.....	664,936 45
Interest.....	18 25
Total income during the year.....	\$873,951 70

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$3 46,689 77
Commissions and fees to agents.....	149,027 17
Commissions paid or allowed for collecting assessments.....	6,613 93
Salaries of managers and agents not paid by commissions.....	13,724 90
Salaries of officers.....	87,478 28
Salaries and other compensation of office employes.....	69,043 30
Medical examiners' fees paid direct by members or otherwise.....	15,984 79
Rent, \$14,036.05; taxes, \$3,770.13; advertising and printing, \$24,899.41.....	42,705 59
All other items.....	67,672 88
Total disbursements.....	\$799,940 61

## INVESTED ASSETS.

Stocks and bonds owned absolutely, market value.....	\$11,837 47
Agents' ledger balances.....	11,353 49
Cash in office and in bank.....	79,662 47
Total invested assets.....	\$102,853 43

## LIABILITIES.

Advance assessments.....	\$49,743 96
All other (not including contingent mortuary).....	9,000 00
Total actual liabilities.....	\$58,743 96

## INSURANCE COMMISSIONER.

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## CONTINGENT MORTUARY ASSETS.

Mortuary assessments called and not yet due.....	\$60,263 00
Annual dues.....	2,230 00
Mortuary assessments not yet called for losses unadjusted, \$38,106.30; resisted, \$20,000.00; total.....	58,106 30
Total due from members.....	<u>\$120,599 30</u>

## CONTINGENT MORTUARY LIABILITIES.

Losses adjusted, not yet due (number of claims, 5).....	\$17,000 00
Losses in process of adjustment (number of claims, 4).....	38,106 30
Losses resisted (number of claims, 4).....	20,000 00
Total contingent liabilities.....	<u>\$75,106 30</u>

## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	\$4,755 00
Annual dues.....	1,713 00
Assessments.....	20,088 00
Total income during the year.....	<u>\$26,556 00</u>

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Losses and claims.....	\$6,594 21
Commissions and fees to agents.....	4,714 50
Salaries and traveling expenses of agents.....	750 00
Rent.....	400 00
All other items.....	572 00
Total disbursements in Minnesota.....	<u>\$13,030 71</u>

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## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887....	41,783	\$203,533,250 00	889	\$4,143,250 00
Policies or certificates written during the year 1888.....	32,046	148,267,500 00	951	4,872,500 00
Total.....	73,829	\$351,805,750 00	1,840	\$9,015,750 00
Deduct number ceased to be in force during 1888.....	26,205	119,874,500 00	724	3,606,250 00
Total policies in force Dec. 31, 1888.....	47,624	\$231,931,250 00	1,116	\$5,409,500 00
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....		61,993 00	7	252 13
Losses and claims on policies or certificates incurred during the year 1888.....		359,803 07	69	8,474 22
Total.....		\$421,796 07	76	\$8,726 35
Losses and claims on policies or certificates paid during the year 1888.....		\$346,689 77	71	\$6,594 21
Policies or certificates terminated by death in 1888.....	31	\$128,750 00	1	\$2,000 00
Policies or certificates terminated by lapse in 1888.....	26,174	\$119,745,750 00	564	\$2,631,000 00

## UNION MUTUAL ACCIDENT ASSOCIATION.

Principal Office.....Chicago, Ill.

(Organized April 14, 1885. Commenced business May 1, 1885.)

J. M. HAMILTON, *President.*T. N. McCAULEY, *Secretary.*

Attorney for service of process in the State of Minnesota, JUDSON N. CROSS, Minneapolis.

Amount of net or invested assets Dec. 31, previous year.....	\$9,414 24
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## INCOME DURING 1888.

Membership fees.....	\$62,140 00
Annual dues.....	16,435 75
Assessments.....	66,386 91
Total income during the year.....	\$144,962 66

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$40,272 91
Advance payments returned to members.....	279 15
Commissions and fees to agents.....	59,259 76
Commissions paid or allowed for collecting assessments.....	6,321 84
Salaries of managers and agents not paid by commissions.....	5,763 48
Salaries and other compensation of officers.....	10,988 74
Salaries and other compensation of office employes.....	6,387 82
Medical examiners' fees paid direct by members or otherwise.....	871 00
Rent, taxes, advertising and printing.....	6,665 18
Advanced to officers and agents, to be repaid out of salaries or commissions.....	1,363 67
All other items.....	7,790 16
Total disbursements.....	\$145,963 71

## INVESTED ASSETS.

Agents' ledger balances.....	4,514 84
Cash in office and in bank.....	3,898 35
Total invested assets.....	\$8,413 19

## LIABILITIES.

Advance assessments.....	\$2,467 00
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## CONTINGENT MORTUARY ASSETS.

Mortuary assessments not yet called for losses unadjusted.....	\$11,900 48
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## ANNUAL REPORT

## CONTINGENT MORTUARY LIABILITIES.

Losses in process of adjustment (number of claims, 17).....	\$8,900 48
Losses resisted (number of claims, 1).....	5,000 00
Total contingent liabilities.....	<u>\$11,900 48</u>

## INCOME DURING 1888 IN MINNESOTA.

Membership fees.....	\$2,865 00
Annual dues.....	817 50
Assessments.....	1,657 75
Total income during the year.....	<u>\$5,340 25</u>

## DISBURSEMENTS DURING 1888 IN MINNESOTA.

Losses and claims (number of claims, 18).....	\$664 91
Commissions and fees to agents.....	\$2,815 90
Total disbursements in Minnesota.....	<u>\$3,480 81</u>

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNESOTA	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887.....	6,068	\$26,402,750	225	\$1,015,500
Policies or certificates written during the year 1888.....	12,428	46,149,500	565	2,153,500
Total.....	18,496	\$72,552,250	790	\$3,169,000
Deduct number ceased to be in force during 1888.....	7,479	\$36,078,500	237	872,500
Total policies in force Dec. 31, 1888.....	11,017	\$46,473,750	550	\$2,296,500
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	1	\$5,000		
Losses and claims on policies or certificates incurred during the year 1888.....	699	47,173	18	\$664
Total.....	700	\$52,173	18	\$664
Losses and claims on policies or certificates paid during the year 1888.....	682	\$40,272	18	\$664
Policies or certificates terminated by death in 1888.....	1	\$5,000		
Policies or certificates terminated by lapse in 1888.....	7,478	\$36,073,500	237	\$872,500

## UNION MUTUAL LIFE ASSOCIATION.

Principal Office.....Detroit, Mich.

(Organized Sept. 22, 1879. Commenced business Nov. 1, 1879.)

C. B. BARNES, *President.*C. E. FOOT, *Secretary.*

Attorney for service of process in the State of Minnesota, K. F. MORSE, Minneapolis, Minn.

Amount of net or invested assets Dec. 31, previous year.....\$3,433 33

## INCOME DURING 1888.

Membership fees .....	\$2,578 50
Annual dues .....	4,992 71
Assessments .....	62,107 46
Total income during the year.....	\$69,678 87

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$46,330 41
Mortality premiums returned to members.....	50 00
Commissions and fees to agents.....	2,032 50
Commissions paid or allowed for collecting assessments and dues .....	2,072 25
Salaries and traveling expenses of managers and agents not paid by commissions	4,252 26
Salaries and other compensation of officers .....	5,884 20
Salaries and other compensation of office employes, and legal expenses.....	2,619 64
Medical examiners' fees paid direct by members or otherwise.....	667 10
Rent, taxes, advertising and printing.....	1,633 54
All other items.....	817 04
Total disbursements.....	\$66,358 94

## INVESTED ASSETS.

Cash in bank .....	\$6,753 06
Interest due.....	51 80
Total invested assets.....	\$6,804 86

## LIABILITIES.

Losses adjusted, due and unpaid .....	\$3,000 00
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## ANNUAL REPORT

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments called and not yet due.....	\$9,996 16
Mortuary assessments due and unpaid .....	359 53
Mortuary assessments not yet called for losses unadjusted, \$7,500.00; resisted, \$2,000.00; reported, \$6,000.00; total .....	\$15,500 00
Total due from members.....	\$25,855 69
Deduct cost of collection.....	395 28
Net amount due from members .....	\$25,460 41

## CONTINGENT MORTUARY LIABILITIES.

Losses adjusted, not yet due (number of claims, 4) .....	\$9,000 00
Losses in process of adjustment (number of claims, 4) .....	7,500 00
Losses reported (number of claims, 5).....	6,000 00
Losses resisted (number of claims, 1) .....	2,000 00
Total contingent liabilities.....	\$24,500 00

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.	
	Number.	Amount.
Policies or certificates in force Dec. 31, 1887.....	2,385	\$4,426, 500
Policies or certificates written during the year 1888 .....	178	408, 500
Total .....	2,563	\$4,835, 000
Deduct number ceased to be in force during 1888.....	417	914, 500
Total policies in force Dec. 31, 1888 .....	2,147	\$3,920, 500
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	12	\$24, 400
Losses and claims on policies or certificates incurred during the year 1888 .....	20	34, 500
Total .....	32	\$58, 900
Losses and claims on policies or certificates paid during the year 1888 .....	27	\$46, 330
Policies or certificates terminated by death in 1888.....	23	\$41, 000
Policies or certificates terminated by lapse in 1888 .....	394	\$873, 500



# WESTERN UNION MUTUAL LIFE SOCIETY OF THE UNITED STATES.

Principal Office..... .Detroit, Mich.

(Organized Feb. 14, 1880. Commenced business March 3, 1880.)

WM. H. BRACE, *President.*

L. M. THAYER, *Secretary.*

Attorney for service of process in the State of Minnesota, GEO. MCNEIR, Minneapolis.

Amount of net or invested assets Dec. 31, previous year..... \$36,709 20

## INCOME DURING 1888.

Membership fees.....	\$32,820 00
Annual dues.....	44,059 17
Assessments — mortuary.....	250,427 22
Interest.....	237 16
<b>Total income during the year.....</b>	<b>\$327,543 55</b>

## DISBURSEMENTS DURING 1888.

Losses and claims paid.....	\$255,000 00
Advance payments returned to rejected applicants.....	967 83
Commissions and fees to agents.....	46,941 51
Salaries of managers and agents not paid by commissions.....	9,167 14
Salaries and other compensation of office employees.....	6,457 66
Medical examiners' fees paid direct by members or otherwise.....	3,075 50
Rent, taxes, advertising and printing.....	3,431 89
All other items.....	7,312 97
<b>Total disbursements.....</b>	<b>\$332,354 60</b>

## INVESTED ASSETS.

Cash in office and in bank..... \$31,898 25

## CONTINGENT MORTUARY ASSETS.

Mortuary assessments called and not yet due.....	\$127,460 80
Mortuary assessments due and unpaid.....	351 84
<b>Total due from members.....</b>	<b>\$127,812 64</b>

## CONTINGENT MORTUARY LIABILITIES.

Losses adjusted, not yet due (number of claims, 17).....	\$67,500 00
Losses in process of adjustment (number of claims, 11).....	53,000 00
<b>Total contingent liabilities.....</b>	<b>\$122,500 00</b>

## EXHIBIT OF CERTIFICATES OR POLICIES.

	TOTAL BUSINESS.		BUSINESS IN MINNE- SOTA.	
	Number.	Amount.	Number.	Amount.
Policies or certificates in force Dec. 31, 1887...	4,787	\$23,497,500	99	\$607,500
Policies or certificates written during the year 1888.....	1,136	5,650,000	1	5,000
Total.....	5,923	\$29,147,500	100	\$612,500
Deduct number ceased to be in force during 1888.....	548	2,487,500	23	105,000
Total policies in force Dec. 31, 1888.....	5,375	\$26,660,000	77	\$507,500
Losses and claims on policies or certificates unpaid Dec. 31, 1887.....	4	\$17,500		
Losses and claims on policies or certificates incurred during the year 1888.....	70	360,000		
Total .....	74	\$377,500		
Losses and claims on policies or certificates paid during the year 1888.....	46	\$255,000		
Policies or certificates terminated by death in 1888.....	70	\$360,000		
Policies or certificates terminated by lapse in 1888.....	478	\$2,127,500		

ANNUAL REPORT

OF THE

MINNESOTA STATE AGRICULTURAL SOCIETY

FOR THE YEAR 1888.

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CONTAINING SECRETARY'S REPORT TO THE GOVERNOR, PROCEEDINGS OF THE SOCIETY, BOARD MEETINGS, FINANCIAL STATEMENTS, INCLUDING AUDITOR'S AND TREASURER'S REPORTS, STATEMENT OF ENTRIES AND AWARDS, AND REPORTS FROM DISTRICT AND COUNTY SOCIETIES.

*Compiled by H. R. DENNY, Secretary,*  
HAMLINE, MINN.



ST. PAUL:  
PIONEER PRESS COMPANY.  
1889.



OFFICERS OF THE

# MINNESOTA

## STATE AGRICULTURAL SOCIETY

FOR 1888.

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<i>President,</i>	-	-	W. R. MERRIAM,	-	-	St. Paul
<i>First Vice President,</i>	-	-	F. C. PILLSBURY,	-	-	Minneapolis
<i>Second Vice President,</i>	-	-	JAS. MCHENCH,	-	-	Fairmont
<i>Secretary,</i>	-	-	H. R. DENNY,	-	-	Hamline
<i>Treasurer,</i>	-	-	FRANK J. WILCOX,	-	-	Northfield

BOARD OF MANAGERS.

C. N. COSGROVE, Le Sueur.	A. N. JOHNSON, Benson.
JOHN COOPER, St. Cloud.	CLARKE CHAMBERS, Owatonna.
J. F. NORRISH, Hastings.	L. H. PROSSER, Wykoff.

STATE AUDITING BOARD.

Gov. A. R. MCGILL, St. Paul.	A. S. BRADFORD, Empire.
OTTO E. NAEGLE, Minneapolis.	HENRY FEIG, Atwater.

COMMITTEES AND SUPERINTENDENTS.

COMMITTEES.

*Reception.*—The President, Vice President and Board.  
*Racing.*—F. C. Pillsbury, E. C. Long, C. Chambers.  
*Printing.*—H. R. Denny, C. Chambers, A. N. Johnson.  
*Transportation.*—F. C. Pillsbury, A. N. Johnson, J. F. Norrish, J. Cooper.  
*Music.*—J. F. Norrish, J. Cooper, H. R. Denny.  
*Privileges.*—J. F. Norrish, C. N. Cosgrove, J. Cooper.  
*Tickets.*—John Cooper, J. McHench, L. H. Prosser.

SUPERINTENDENTS.

<i>General Superintendent,</i>	-	-	H. R. DENNY,	-	-	Hamline
<i>Superintendent of Grounds,</i>	-	-	WM. F. CROSS,	-	-	Hamline
<i>Superintendent of Gates,</i>	-	-	JOHN COOPER,	-	-	St. Cloud
<i>Superintendent of Forage,</i>	-	-	A. N. JOHNSON,	-	-	Benson

Superintendent of Division A.—*Horses*: Clarke Chambers, Owatonna.  
 Superintendent of Division B.—*Cattle*: G. M. Tousley, Le Sueur.  
 Superintendent of Division C.—*Sheep and Swine*: L. H. Prosser, Wykoff.  
 Superintendent of Division D.—*Dairy Products*: S. M. Emery, Lake City.  
 Superintendent of Division E.—*Manufactures*: E. A. Young, St. Paul.  
 Superintendent of Division F.—*Art Gallery*: Vincent De Gurnon, St. Paul.  
 Superintendent of Division G, H and I.—*Horticulture, Vegetables and Culinary*:  
     Wyman Elliot, Minneapolis.  
 Superintendent of Division K.—*Grain and Farm Products*: Prof. E. D. Porter,  
     St. Anthony Park.  
 Superintendent of Division L.—*Farming Implements*: W. M. Bushnell, St. Paul.  
 Superintendent of Division M.—*Poultry*: W. A. Gates, Sauk Centre.





# Minnesota State Agricultural Society.

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## SECRETARY'S REPORT.

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SECRETARY'S OFFICE, STATE FAIR GROUNDS, }  
HAMLINE, MINN., Dec. 10, 1888. }

### INTRODUCTION.

*To His Excellency, Hon. W. R. Merriam, Governor of Minnesota:*

I have the honor to present this annual report in compliance with the requirements of section six (6) of an act of the legislature to reorganize the State Agricultural Society, approved March 3, 1887, showing the proceedings of the society for the fiscal year 1888; also its financial condition and such other information as this office has been able to gather from the different departments relating to the result of exhibits during the last state fair, together with such information as I have been able to collect from the reports of county and district societies. The neglect on the part of many of these latter societies to avail themselves of the favorable opportunity to be heard through the annual report of the State Agricultural Society is a matter of regret, as anything like a full report is impossible. The farmers of Minnesota have a common interest in the general welfare of all these local societies, and this consideration, together with many others, would seem to be sufficient to warrant the fullest publication of the prosperity and working of all the agricultural organizations of the state.

The state has been very liberal in its appropriations for the benefit of all deserving agricultural societies, and stands willing to bear the expense of printing and distributing such informa-

tion as comes to hand for the use of those who may desire such information, both in and out of the state.

The societies making the best showing would naturally suggest to the mind of the intelligent immigrant the idea of the superior agricultural advantages and enterprise of the districts in which they are located.

In my judgment the importance of this subject can not be too carefully weighed by the heads of agricultural organizations in this state, because of the mutual advantages to be derived therefrom. It must be remembered that Minnesota is no longer classed as exclusively a wheat growing state, but to a large extent, diversified farming has taken the place of any special product. Hence it is very important that the people of other states should be informed of our progress in this respect, that they may the better understand the capacities of our soil for the purposes of general farming.

The exhibits at each state fair at its permanent grounds have fully demonstrated the truth of the above proposition. The one industry of stock raising has challenged the admiration of all who have had the privilege of visiting these annual exhibitions, so that our progress in that direction is already a surprise to the citizens of other states who had been led to believe that Minnesota could raise wheat only.

Now that we have established our right to be classed among the best agricultural states in the Union, there is no reason why we should not "let our light shine" and show to the world that we are what we claim to be, a progressive agricultural people.

The fair of 1888 is acknowledged to have been more complete and elaborate than any exhibition since its reorganization. Everything was done to make each department complete and the superintendents worked with untiring energy to that end. All the varied industries of importance, agricultural, commercial, mechanical and manufacturing, of this state and many others, were represented. The fame of Minnesota's state fair had already been spread broadcast over the land, and it only required diligent effort to bring together one of the best exhibitions ever seen in this or any other country.

How well this duty was performed by those in charge of the affairs of the society is left to the judgment of the tens of thousands who visited the grounds during fair week, and the great success thus attained ought not to surprise anyone when it is called to mind that in the space of three short years, through the

enterprise of the citizens of the state, the handsome gift of Ramsey county in donating such a beautiful and commodious site for a permanent exhibition, and the liberality of our legislators, the agricultural society can now boast of being the owner of property valued at nearly \$600,000.

The buildings are as good if not the best in the Northern States, and an increased demand, year after year, will add to them as circumstances may require. The land is growing more valuable every year, and this thought is most inspiring as it gives a good impetus to the efforts of the society.

While the exhibits of 1888 were all that could be desired there was one drawback, however, which could not be anticipated. The weather during fair week was not on the whole favorable. This can be better understood by a reference to the statement herein of gate receipts. On Thursday the attendance had reached about 24,000, which was a fair day; but on Friday, a very wet day, the attendance fell off to less than 3,000, fully half of whom were exhibitors and their assistants. Had Friday been a fair day it is reasonable to estimate an attendance of 40,000, at least, which would have left a nice balance in the treasury at the close of the fair. The attendance on Saturday was over 20,000, notwithstanding the rain of the day before and Saturday morning, and had the weather throughout the week been favorable the attendance would have run up to over 125,000 and possibly 150,000.

On the whole, the managers have no cause for complaint at the general result, for it may happen again, however good the display, that the attendance at the fair will be largely diminished on account of unfavorable weather. One of the meritorious features of the fair was the great care taken to keep all "fakirs" from the grounds, so that no impositions could be practiced upon the unsuspecting public. This policy was deemed advisable by the management. The small sum to be realized from privileges granted to swindlers would not compensate for the evil influences engendered by their presence.

### FORMAL OPENING.

The thirtieth annual state fair was opened by the president, W. R. Merriam, and other officers of the association, with appropriate ceremonies, on Monday, the tenth day of September, 1888, and concluded on September 15th of the same month. The



day opened with fair weather, and the first day's attendance was good. All the various departments were very complete, which is not usual for the first day. The superintendents had performed their duty well, so that all who visited the grounds on Monday were enabled to obtain a perfect idea of all the exhibits.

#### STARTING THE MOTIVE POWER.

Following the formal opening of the fair, interesting exercises were had at the machinery department, under the charge of Supt. Wm. M. Bushnell, who made the following address:

"The hour has now arrived for the opening of the thirtieth annual exhibition of the state agricultural society. As we gaze with wonder at the great inventive genius that produced all these mechanical contrivances, we must exclaim: 'Truly this is a great country.' We behold on the one hand every device known to man for labor saving, with all the improvements man can contrive; on the other hand we view with pleasure the varied production of the soil of our proud state. Then too we look with deepest pride upon the magnificent stock of all kinds, bred, raised and used within the boundaries of our great State of Minnesota. Here, there, and on every hand you see the evidence of the great wealth and boundless resources of our state, and I ask you all to examine carefully and thoughtfully the wonders you see about you. They are living evidences of contentment and happiness of the citizens of our state, who are protected by wise and judicious tariff laws, our country affording to every honest man and woman an opportunity to earn not only a good living but a comfortable home to enjoy in old age.

"In the name of the president of this association, I bid you welcome; and we will now proceed to the starting of our great motive power by one tiny finger of a tiny hand, applied to the electric button." At the conclusion of the address Wm. Bushnell, Jr., touched the electric button, and in an instant the greatest exhibition of mechanical genius ever seen in Minnesota was put in motion, and a hurrah went up from all parts of the ground.

#### MAIN BUILDING.

The main building was replete with interesting exhibits of manufactured wares and elegant household goods. Many of the leading firms of St. Paul and Minneapolis were represented.

The machinery exhibit was superior in quality and much



more extensive than ever before. The length of shafting was one and three-eighths miles, and there were eight hundred and forty-one machines on exhibition. The very air was filled with the ever-busy hum of industry, not unlike that frequently heard in condensed manufacturing districts.

Eighteen different states of the Union were represented by 1,000 exhibitors in this department, and the value of the goods on exhibition was estimated at \$800,000. The success of this department was due to the untiring efforts of Supt. Bushnell and his able corps of assistants.

One of the more notable displays was that of harvesting machinery, showing many recent and useful inventions. Other displays, consisting of vehicles of all kinds, and various improvements in motive power, are worthy of especial mention. Space here will not allow any detailed statement of this marvelous exhibit.

The show of live stock was pronounced the best in the history of the society, especially in the display of blooded stock. The twelve large barns and several smaller ones were packed to overflowing with horses, cattle, sheep, and swine. Some of the more noted prize winners in the United States were on exhibition. The best horses and cattle to be found, both American bred and imported, were found in the grand exhibit. Besides a splendid showing by Minnesota breeders, there were horses and cattle from England, France, and Scotland. The exhibit of sheep and swine was equally wonderful, and attracted more than usual attention.

The dairy department came to the front with an excellent display of such goods as the state can produce. All who took pains to carefully look over this department were well repaid.

The art gallery maintained its former good reputation for a first class display of choice paintings and works of art. Many of the wealthy citizens of the state contributed to this department, and many valuable works of art were brought from other states.

Perhaps the most interesting department, especially to the farmer, and visitors from other states, was agricultural hall. It was there that the evidences existed of the varied productiveness of Minnesota's soil. It showed both the richness and the capacity of the land in all parts of the state. The exhibits embraced grains, grasses, luscious fruits, vegetables, flowers, and all the products that a farm can produce. The thanks of the

association are due to those who strove to make this branch of the fair such a grand success.

#### THE BREEDERS' RACES.

The racing program for the first day was devoted entirely to the Minnesota Breeders Association, Minnesota horses only being eligible. The racers were principally youngsters, and the racing was very interesting to all present, and general satisfaction was expressed at the showing made by splendid young trotters of the association.

Tuesday was designated as "Minneapolis Day," and the day opened with many new features. The Great Western Band had arrived, and in the meantime some additional machinery. The main building, where the ladies most desire to tarry, presented a lively appearance early in the day, and every booth was occupied by exhibitors.

One of the notable features of the day was the usual visit of the Jobbers Union, who entertained their many guests right royally at their pavillion on the ground, as they did on each day of the fair.

The racing program was very interesting, although a strong west wind impeded the speed of the horses somewhat, a half mile being made against the wind, and the track was a little slow. However, the races were good, and much enthusiasm prevailed all the afternoon at the grand stand.

Mr. W. T. Grattan officiated as starter, and Messrs. Taft, of Milwaukee, and Woodmansee, of St. Paul, as judges. The quickest time made was 2:21½ in the 2:30 pacing race.

Wednesday the day opened with a cool breeze, but grew warmer toward night. A largely increased attendance was noticeable early in the day, and the thousands who came to witness the great exhibition improved the favorable opportunity to see all the varied and magnificent displays. This was to be the great live stock day, but the display was postponed to take place on Friday at the time appointed for the industrial parade.

Among the many interesting features of the day was an exciting steeplechase, participated in by several horsemen. This was a new feature in the Northwest. The course was twice around the track (two miles) and the time was 3.22. There were ten entries, coming from Southern Minnesota, Iowa, St. Paul, and Minneapolis. A mile dash was made in 1.48½.

A balloon was sent up 2,000 feet, and Prof. Oscar Hunt made a descent with a parachute, landing safely on the fair grounds.

There were many other attractions of more or less interest to the spectators, and the day was a success in all respects.

Thursday was "St. Paul Day" and the people flocked in crowds to the grounds until over 23,000 had passed through the gates. Persons desiring to see Minnesota's great exhibition had arrived from all parts of the state, and from Wisconsin, Nebraska, Iowa and the Territory of Dakota. Our neighboring states were represented by some of their most prominent men, who came to size up the industries of the North Star State.

Among the best features of the day was a grand parade of 1,200 traveling men from St. Paul, Minneapolis and other points, and they were met at the depot at 1:30 by the officers of the association and escorted to the band stand where a speech of welcome was made by Supt. Bushnell, who introduced President W. R. Merriam. He spoke briefly of what the merchants had done in building up the Northwest and the two great cities of St. Paul and Minneapolis, and they laid the foundation for the manufacturing and jobbing interests of the Northwest. The visitors were then welcomed to the freedom of the grounds and the wonderful exhibits to be found there. Secretary H. R. Denny was next introduced, who, in a few remarks, presented the keys with which to unlock the doors to one of the best agricultural and industrial exhibitions of the world.

The racing was well attended and the grand stand contained more people than on any day for the purpose of witnessing the races.

During the forenoon many of the visitors took time to visit the "flyers" at the commodious stables and were well repaid.

This was *the* day of the fair, so far as numbers were concerned, and all exhibits were in the best possible condition.

Friday was a blank day on account of a severe rain, and very few people ventured to visit the grounds. Nothing was attempted to be done and the disappointment at such a turn of affairs was very great, not only to the association but to 50,000 people who would have attended had the weather permitted. The industrial parade, which was to have taken place on Friday was again postponed until Saturday, as was also the stock display.

Saturday, the last and most interesting day of the fair, on account of the many excellent features provided for the occasion, opened with clouds and rain in the morning, but the sun shone



brightly at 9 A. M. The people again seized upon the last opportunity to witness the fair of 1888. It was a great day in point of numbers, displays, the industrial parade, stock display, sham battle, and numerous other special attractions. Good music, as on previous days, added a charm to the occasion. The industrial parade, more than a mile in length, consisting of the exhibits on the grounds, attracted great attention. It took place in the forenoon. The procession was headed by the Great Western band, of about sixty pieces.

President Merriam and Supt. Bushnell rode in advance of the procession in a magnificent carriage drawn by two bay horses.

The stock display came next, and the grand pageant marched in front of the grand stand, where it was viewed by the thousands who had assembled at the great amphitheatre. This feature of the day, however, was brought to a sudden termination by a slight rain, and that part of the program at the main hall, where Gov. McGill and staff and the officers of the association had assembled to review the procession, was abandoned.

Another balloon was sent up 2,000 feet, and Millie Viola made a successful descent with a parachute.

#### THE SHAM BATTLE.

Although not a new feature at the fair grounds, it was by far the most attractive and inspiring for the week. Long before the hour when the bloodless combat was to begin the people filled the great amphitheatre and all other available space where a commanding view could be had of the contending forces. At the appointed time the opposing forces marched into the inner field, surrounded by the race track, and all eyes were directed to the soldiery, as each army, amid the inspiring strains of music and the clatter of swords and glittering of bayonets took its position on the field of battle.

At this hour over 20,000 people had obtained a view of the pending conflict. To those who had never seen a real battle the opportunity of witnessing the movements of the troops in a sham battle afforded a very good idea of the excitement of war, when so ably planned and executed. The battle was planned by Gen. E. C. Mason, Third Infantry U. S. A. who commanded the army of the "Red." The army of the "Blue" was commanded by Gen. W. R. Marshall. The opposing forces were made up of the regulars, state militia, several G. A. R. posts, sons of veter-

ans, a detachment of cavalry, two pieces of artillery and a Gatling gun. The army of the Red was stationed on the hill to the west of the track and there were in all about 1,500 men on both sides, about equally divided.

Each man was furnished with forty rounds of ammunition. The state militia and regulars used improved muskets and the G. A. R. the old fashioned.

At 3:20 the forces were ready for the fray, and skirmish fire, commenced by the cavalry from the Blues and infantry from the Reds, was the first signal that the battle was on. The movements were brilliantly executed and gave evidence of a skillfully planned battle. Any description of the battle in the space allowed here would convey no real idea to the reader of the grand spectacle as viewed from the surrounding heights.

It was a fitting climax to a great exhibition. To close such an event amid the roar of cannon and cracking of musketry, calling to mind one of the greatest achievements in our country's history, is glory enough for the closing day. These great attractions are only evidences of the policy of the management to give the patrons of the fair the very best entertainment possible. These festivities brought the fair to a close. The necessary postponement of the races on Friday and Saturday was a great disappointment to race goers and tended largely to diminish the receipts during the last two days. The earnest labors of those in charge of the various departments continued to the close and the thanks of the management and the public are due to their untiring efforts to please.

The officers had done all in their power to make the fair one long to be remembered for its completeness in all respects. If there were any mistakes it can not be attributed to want of diligence on their part.

The amount of labor and detail necessary to the successful arrangement of a state fair, worthy of the name of our prosperous state, is known to only those who have performed the task. Let us hope future annual fairs in Minnesota will be conducted on the same broad plan, to please and benefit the people of the state at whatever cost of energy and money. Such has been the policy since the organization of the association.

Respectfully,

H. R. DENNY,

*Secretary.*



PROCEEDINGS  
OF THE  
ANNUAL MEETING  
OF THE  
MINNESOTA STATE AGRICULTURAL SOCIETY.

JAN. 10, 1888.

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Pursuant to law, and the regularly published call, the Minnesota State Agricultural Society convened in annual session at the senate chambers in the state capitol, St. Paul, on Tuesday, Jan. 10, 1888, at 10:30 A. M., and was called to order by the president, Hon. W. R. Merriam, who stated its object and appointed the following as a committee on credentials: Hon. J. J. Furlong, Joel P. Heatwole, Alexander Fiddes, H. W. Stone, Sr., Col. J. H. Stevens, C. N. Cosgrove, and H. D. S. Hall.

On motion of J. H. Baker, a committee on by-laws for the government of the society at its annual and special meetings, was appointed by the chair, consisting of Gen. J. H. Baker, Geo. W. Taylor, and S. O. Morse.

The committee on credentials reported that they had examined the credentials handed in, and found that the following delegates and life members were entitled to seats. Report adopted:

*Anoka County Agricultural Society.*—Alvah Eastman, C. G. Jackson, Thos. Coleman.

*Rice County Agricultural Society.*—J. H. Pettys, T. J. McCarthy, S. S. Crocker.

*Becker County Agricultural Society.*—Geo. W. Taylor.

*Blue Earth County Agricultural Society.*—J. H. Baker, Dr. Curryer.

*Curver County Agricultural Society.*—Chas. Skone, Frank Meisler, Frank Warner.

*Crow Wing County Agricultural Society.*—S. A. Relf.

*Dakota County Agricultural Society.*—R. C. Judson, C. I. Haynes, L. P. Dodge.

*Society of Stearns, Benton, Sherburne and Mille Lacs Counties.*—A. K. Hunt, district agent.

*Dodge County Agricultural and Mechanical Institute.*—Geo. B. Arnold, Henry Courier, Z. B. Page.

*Faribault County Agricultural Society.*—F. N. Temple.

*Faribault County Agricultural and Stock Society.*—J. J. Eggabroad, J. P. Humes, O. C. Ritzloff.

*Fillmore County Agricultural Society.*—M. T. Grattan.

*Goodhue County Agricultural and Mechanical Institute.*—I. C. Stearns, J. E. English and J. H. Hall.

*Hastings Union Industrial Association.*—J. F. Norrish, John Byers.

*Hennepin County Horticultural and Gardeners Association.*—W. S. Chowen.

*Jackson County Agricultural Society.*—Alex. Fiddes.

*Kandiyohi County Agricultural Society.*—C. M. Reese.

*Le Sueur County Agricultural Society.*—A. B. Moffat, R. H. Everett, C. N. Cosgrove.

*Martin County Agricultural Society.*—Jas. McHench.

*McLeod County Agricultural Society.*—W. J. Ives, John Duckering, O. D. Hutchinson.

*Mower County Agricultural Society.*—J. J. Furlong, G. Schleider, G. O. Adams.

*Murray County Mechanical and Agricultural Fair Association.*—S. O. Morse, B. M. Low.

*Olmsted County Agricultural Society.*—A. T. Stebbins.

*Red Wing Industrial Association.*—W. F. Cross, Wm. Boothroyd, T. Bixby.

*Redwood County Agricultural Society.*—Joseph Tyem, O. L. Dornberg.

*Renville County Agricultural and Live Stock Association.*—D. S. Hall, H. V. Poore, C. H. Nixon.

*Rice County Union Agricultural Society.*—J. J. Alexander, J. P. Heatwole, A. W. Riddell.

*Rock County Agricultural Society.*—O. E. Spaulding, R. B. Hinckley, A. M. Crosby.

*Southern Minnesota Fair Association.*—C. Van Campen.

*Swift County Agricultural Society.*—W. M. Liggett, A. N. Johnson, W. A. Foland.

*Southern Minnesota Live Stock and Fair Association.*—E. Weaver.

*Waseca County Agricultural, Mechanical and Industrial Association.*—H. H. Corsen, Samuel Leslie, Ed. Coster.

*Washington County Agricultural Society.*—C. P. Gregory.

*Wright County Agricultural Society.*—A. W. Hoar, D. R. Farnham.

*State Dairymen's Association*—E. G. Potter.

*State Farmers' Alliance*—Eric Olson.

*State Horticultural Society*—S. D. Hillman.

*Life members*—Wyman Elliot, Wm. Brimhall, James McHench, H. W. Stone, Sr., J. H. Stevens, John Cooper, N. K. Hunt, J. W. Boull, John C. Flascher, W. G. Hendrickson, R. C. Judson, E. A. Hendrickson, A. P. Hendrickson, J. S. Harris.

Total number present in person or by proxy ..... 94

Life members present..... 14

Total..... 108

Mr. Taylor moved that Hans Mattson be permitted to represent the Park Region Agricultural Society inasmuch as the said society is unrepresented.

The chairman read the law and doubted the right of the convention to admit any as delegates who were not regularly chosen or legally qualified to serve by virtue of their office. The question was discussed by Mr. Taylor, Mr. Norrish and others and the motion withdrawn.

Mr. J. H. Baker presented a draft of the by-laws recommended by the committee, of which he was chairman, and on motion the same were adopted. They are as follows:

BY-LAWS OF THE MINNESOTA STATE AGRICULTURAL SOCIETY, ADOPTED  
JAN. 10, 1888.

MEETINGS.

The annual meetings shall be held in the city of St. Paul in accordance with the act of reorganization, approved March 3, 1887, on the second Tuesday of each year, at 10 o'clock A.M., at some convenient place; and thirty days' notice of such meetings shall be given to the secretary of the different societies forming the state association; and a notice of the meeting shall be printed in at least one of the daily papers of the city of St. Paul, and in one daily paper in the city of Minneapolis, once each week for the four weeks preceding the annual meeting.

Special meetings of the society may be called by the board of managers, by giving all the societies at least ten days' notice of the meeting naming the place and time of such meeting.

#### OFFICERS.

The president shall preside at all meetings of the State Agricultural Society. He shall present to the society, from time to time, his views as to the requirements of the organization, with reference to its efficiency, and shall make such suggestions as to the management of the fair as he may deem proper.

In the absence of the president, the first vice president shall assume his duties. In the absence of both the president and vice president, the second vice president shall act.

#### VACANCIES.

In case of the death or resignation of the president, the first vice president shall become president; the second vice president shall become first vice president, and the board of managers shall fill the vacancies caused by the promotion of the second vice president.

In case of the death or resignation of both president and first vice president, the second vice president shall become president and the board of managers shall fill the vacancies.

In case of the death or resignation of the president and second vice president the board of managers may elect new officers to fill the vacancies.

In case of any vacancy on the board of managers the remaining members are authorized to fill the vacancy.

#### SECRETARY.

The secretary of the board of managers shall act as secretary of all meetings of the association; shall keep a careful and complete record of events transpiring at such meetings in a book prepared for that purpose. He shall present at each annual meeting a statement showing the financial condition of the association, and a history of its operations for the preceeding year.

#### ORDER OF BUSINESS.

Committee on credentials.

Reports of officers.

Election of president, first and second vice presidents and managers.

Miscellaneous.

Adjournment.

The secretary presented a summary statement of the financial condition of the society, showing the following facts:

*First*—That the sum of \$2,173.29 had been paid out of the treasury during the past year on account of bills and claims of 1885 and 1886, which had been settled and adjusted.

*Second*—That the sum of \$23,923.28 of bank indebtedness (notes and interest) of 1885 and 1886 had been paid out of the treasury, and the further sum of \$1,025.56, discount and interest



on state warrants of \$25,000, due Aug. 1, 1887, but not available on account of a lack of funds.

*Third*—That the sum of \$10,988.81 had been expended in permanent improvements upon the state fair grounds during the year 1887, beside the sum of \$1,042.86 paid on improvement accounts of 1885 and 1886 included above.

*Fourth*—That the expenditures on account of the fair of 1887 had been \$61,254.64, which included \$42,465.39 expended in premiums, purses and attractions, and \$18,789.25 in advertising and fair printing, bill posting, officers salaries, labor in departments, police, ticket sellers, gate keepers, labor board, postage, express, freight, fuel, oil, and incidentals.

*Fifth*—That the net profits of the fair proper were \$18,047.34, all but \$4,407.73 of which had been expended in permanent improvements and old indebtedness.

*Sixth*—That the total receipts on account of the fair of 1887 had been \$79,303.98, and the whole receipts of the year, including \$25,000 of the state appropriation and balance on hand at the beginning of the year, \$105,200.53.

*Seventh*—That the present liabilities of the society were \$24,500 of interest bearing notes, with interest at six per cent from Aug. 4, 1887, and not to exceed \$250 of outstanding claims unsettled at the end of the year. That to meet this liability the society had an unexpended balance of \$4,407.73, and a balance from the state appropriation of \$25,000 made by the last legislature.

*Eighth*—That the property account of the society based upon present values, and including the lands, buildings, personal property, credits and cash, and excluding the bills payable, is \$572,631.92.

For a more convenient understanding of the present financial condition of the society, a copy of the statement made by the secretary is appended hereto and made a part of this report.

The secretary read a letter from Hon. Ignatius Donnelly, vice president, declining a re-election on account of contemplated absence from the state.

The chair announced an evening lecture by President Northrop, of the state university, upon the subject of "Historic Lessons" at 8 o'clock P. M. in the senate chamber.

On motion a recess was taken until 2 o'clock P. M.



## AFTERNOON SESSION.

Meeting called to order by the president at 2 P. M.

The committee on credentials made a supplementary report, which was acted on, but which is incorporated in the report as first given, it being but the addition of a few delegates.

The president then read his report, which was received with approbation, and announced that the next thing in order was the election of officers.

Hon. C. P. Gregory spoke in favor of the re-election of President Merriam to the office he now holds.

Gen. J. H. Baker was called to the chair.

Moved and seconded, that the secretary be instructed to cast the ballot of the society for W. R. Merriam for president of the society for the ensuing year. Carried unanimously.

The secretary cast the ballot as directed, and the chair announced that W. R. Merriam had been duly elected as his own successor.

The chair announced the next thing in order to be the election of vice presidents.

E. G. Patten nominated Fred C. Pillsbury, of Minneapolis, for first vice president. The name of Gen. J. H. Baker was also placed in nomination for first vice president, and a ballot was ordered.

Geo. B. Arnold and Joel P. Heatwole were appointed tellers.

The secretary read the roll call of delegates and life members, and as the counties were called the delegates voted as follows:

Whole number of votes cast, 110; necessary to a choice, 56. F. C. Pillsbury received 65; Gen. J. H. Baker received 45.

Gen. Baker moved that the election of F. C. Pillsbury as first vice president be made unanimous. Carried unanimously, and the chair announced that F. C. Pillsbury had been duly elected first vice president for the ensuing year.

M. T. Grattan nominated Jas. McHench, of Martin county, for second vice president; Col. W. M. Liggett nominated H. W. Stone, of Stevens county, for second vice president.

The ballot resulted as follows:

Whole number of votes cast, 107; necessary to a choice, 54; James McHench received 57; H. W. Stone received 50.

The chair announced that James McHench had been duly elected second vice president.

Col. J. H. Stevens presented a petition from a committee of

the manufacturers and jobbers from the "Twin City Implement Association," of St. Paul and Minneapolis, which included the following resolution adopted by said association Dec. 28, 1887:

WHEREAS, The manufacturers and jobbers of farm machinery and buggies make up a large display, the same being an attraction at all of our state fairs; and

WHEREAS, Said manufacturers and jobbers have been to a large expense, in not only making large displays, but in constructing buildings of their own (in a great many cases) on the grounds; and

WHEREAS, They have not had a representative on the board of managers, therefore,

*Resolved*, That a committee be appointed to present the name of Wm. J. Dean, of Hennepin county, for your consideration at the coming election, he always having been active towards the maintenance of the state fairs, and his firm always having made a large display, they being the owners of a large building on the said grounds; therefore,

*Resolved*, That the following committee present his name to your honorable body :

GEO. CLARK,  
E. A. WRIGHT,  
J. H. BURWELL,  
*Committee.*

Col. J. H. Stevens indorsed the action of the committee and nominated Wm. J. Dean for manager.

J. P. Heatwole nominated Clarke Chambers for one of the managers.

Gen. Baker nominated C. N. Cosgrove, of Le Sueur, for manager.

Mr. Crocker nominated J. J. Alexander, of Wright county.

E. Olson nominated Hon. J. J. Furlong, of Austin, for manager, and asked that the farmers alliance of Minnesota be recognized in the society by his election.

Mr. Potter nominated S. Leslie, of Waseca, and asked that the dairy interests of the State of Minnesota, which is one of the chief agricultural interests, be recognized.

Gen. Baker withdrew the name of C. N. Cosgrove temporarily from before the committee.

John Cooper spoke in favor of the election of men who are able and willing to represent all legitimate interests. He deprecated the idea that any particular interest could not receive just and fair treatment at the hands of the board without it had a special representative.

Mr. Heatwole moved that the managers be elected separately, one at a time.

The name of F. D. Holmes, of Owatonna, was placed in nomination.

The name of J. J. Alexander was withdrawn. The Secretary was authorized to cast the ballot of the convention for Clarke Chambers. Carried unanimously, and the same being done, the chair announced that Clarke Chambers was duly elected manager for the term of three years.

Gen. Baker then renewed his nomination of C. N. Cosgrove, for manager, and moved that the secretary be instructed to cast the ballot of the society for his election, and it was so ordered.

The vote not being unanimous, Mr. Cosgrove asked that a ballot be taken, which was ordered. The names of F. D. Holmes, W. J. Dean and J. J. Alexander were again placed in nomination. Following is the result of the ballot: Whole number of votes cast, 109; necessary to choice, 55; C. N. Cosgrove received 80; W. J. Dean received 10; J. J. Alexander received 10; J. J. Furlong received 6; F. D. Holmes received 3.

The chair announced that C. N. Cosgrove, having received a majority of the votes cast, was duly elected manager for three years.

Mr. Furlong presented a resolution asking for the relief of Geo. D. Knox, who was injured on the fair grounds on the last day of the fair, as follows:

Inasmuch as G. D. Knox, of Mower county, Minnesota, received serious and material injuries to his person at the "Sham Battle" held by the state agricultural society at its last exhibition, from which he is disabled and unable to provide for his large family, therefore,

*Resolved*, That we allow the said G. D. Knox the sum of two thousand dollars (\$2,000), to be paid out of the treasury of the society from funds not otherwise appropriated (provided that, if the funds are deficient at present, the said amount to be paid as soon as practicable), for the purpose of procuring additional medical aid and assisting him to provide for his family until such time as his health is more fully restored.

The question was fully discussed by Mr. Furlong, Mr. Ives, Mr. Cooper, Gen. J. H. Baker, Mr. Grattan, and others. Mr. Grattan offered a substitute, as follows: "That the board of managers be instructed to examine into the facts relating to the injury of Geo. D. Knox upon the last day of the last fair, and grant him such merciful aid as the law will permit."

After further discussion and numerous motions that were not put to a vote, Mr. Grattan added to his own substitute the following:

"Sending him at once a check of \$500, and such other sum as in their judgment may be needful, not to exceed \$2,000."

Mr. Cooper desired that the board be relieved of any official responsibility in the matter. He questioned their legal right to expend money in this way and wanted the society to take the responsibility.

Gen. Baker thought the Grand Army Post that engaged him should look after his relief. Mr. Furlong desired to amend Mr. Grattan's substitute by making the sum \$2,000 instead of \$500. The question was fully discussed and the substitute offered by Mr. Grattan as amended by himself was finally adopted.

Mr. Potter presented the following resolution and moved its adoption:

Inasmuch as the dairy interests of Minnesota have contributed largely towards building the general agricultural interests and prosperity of the state, and already the interests hinging upon and connected with the dairy industry, represent one of the largest agricultural interests of the state, therefore

*Resolved*, That it is the sense of the meeting that the dairy interests are entitled to at least one representative on the board of management of the state agricultural society.

The resolution elicited considerable discussion, but was finally adopted.

The secretary presented the application of C. E. Marvin to become a life member of the society.

It was moved by Gen. Baker that a standing committee of three be appointed to whom shall be referred all applications for life membership, which committee shall be appointed by the chair and report at the next annual meeting. Motion carried and the chair appointed as such committee, Gen. J. H. Baker, F. D. Holmes, M. T. Grattan.

On motion the meeting adjourned.

[Signed]

H. E. HOARD,

*Secretary.*

NOTE.— President Cyrus Northrop of the state university delivered a lecture before the society Tuesday evening, Jan. 10, 1888, at the state chambers, his subject being "Historic Lessons."



Meeting of the board of managers of the Minnesota State Agricultural Society for organization and election of officers Jan. 17, 1888.

The board of managers of the Minnesota State Agricultural Society met pursuant to law at the office of the president, Hon. W. R. Merriam, on Tuesday, the seventeenth day of January 1888, at two o'clock P. M.

Present, Fred. C. Pillsbury, first vice president; Jas. McHench, second vice president; H. E. Hoard, secretary, with John Cooper, A. N. Johnson, John F. Norrish, L. H. Prosser, Clarke Chambers, and C. N. Cosgrove, members of the board of managers.

The president being absent, First Vice President Pillsbury took the chair, and on a roll call of officers and members being called, announced a quorum present.

The minutes of the last meeting of the board, Dec. 8, 1887, were read, corrected and approved; also the proceedings of the annual meeting of Jan. 10, 1888, were read and informally approved.

Leonard Johnson being present and having matters that he desired to be heard on, the regular order was suspended and he was heard. He presented a letter from Geo. W. Taylor, who during the last fair acted as clerk during the time that the horses were being judged and who kept the record thereof, stating that he believed an error had been made in the judges report, which report gave the first premium on French coach stallions to Merriam and Wilder and that he was fully convinced that said first premium was duly awarded to Leonard Johnson, and that he was entitled to the same. The opinion of Clark Chambers was also given that Mr. Johnson was awarded said first premium, notwithstanding the judges' report gave it to another party.

Mr. Norrish offered the following resolution which was, on motion, adopted:

WHEREAS, Through some clerical error, the first premium on French coach stallions was erroneously reported as awarded to, and was paid to, Messrs. Merriam and Wilder, when, in fact, the premium was awarded to the horse owned and exhibited by Leonard Johnson; now, therefore, be it

*Resolved*, That the said premium be paid to said Leonard Johnson, and that Messrs. Merriam and Wilder be advised of the error, and asked to return to the society the amount of said premium erroneously paid.



Mr. Johnson also called attention to the phraseology of rule 31, in the premium list, which says that "No second premium shall be paid unless there are two competing exhibitors, and no third premium unless there be three competing exhibitors," and stated that the rule was unjust and unfair, and that it worked a great injury to our exhibitors, especially to those who were prepared to exhibit animals not common in the state. He was of the opinion that the rule was originally intended to convey the idea that no second premium would be allowed an animal or article that had already received first premium. At any rate, although it was one of the old rules, it had never been construed in the literal sense until this year, and he asked that it be abrogated. The president stated that there could be but one construction of the rule as it stands, but that he had no knowledge as to what was the intention in its adoption. The question was considered in all its bearings, and notwithstanding that it had been sustained at a previous meeting and the request for its abrogation refused, yet it was considered that it was not a good rule, particularly in the exhibition of live stock, and the following resolution being presented, the same was, on motion, adopted:

WHEREAS, Rule 31, in our premium list for 1887 has been construed according to its strict literal sense, which prohibits the paying of second premiums where there is but one exhibition; therefore,

*Resolved*, That all second and third premiums offered and awarded last fair, that have been withheld on account of said literal construction of rule 31, be paid notwithstanding said rule.

The auditing committee, of 1887, presented their supplemental and complete report of the bills audited and allowed by them during that year, which report gave the name and nature of all claims, the amount claimed and the amount allowed and paid, which report was, on motion, duly received and adopted.

This report was due and ready to be considered at the meeting of the old board, called to be held Jan. 9, 1888, just prior to the annual meeting, but as no quorum was present at that time, and no other meeting of the old board was held, it was considered and adopted at this meeting; but for convenience, and to keep it in its proper place, it is not entered here but *filed for reference*, and includes all the bills allowed during the year, the same having been either originally approved or allowed by the committee examining afterward and ratified.

The report of the state board of auditors was received, read, and ordered filed and recorded. It is as follows:

## REPORT OF THE BOARD OF AUDITORS, STATE AGRICULTURAL SOCIETY.

The undersigned board, created by virtue of section 4, chapter 181 of the General Laws of 1887, hereby beg leave to make the following report: That we have received, examined into, and audited all the accounts of the said state agricultural society for the fiscal year beginning Dec. 11, 1886, and terminating Dec. 10, 1887, as shown by the annual reports of the secretary and treasurer of said society; that upon thorough investigation we find the said reports of the secretary and treasurer to be correct and reliable excepting the amount of two orders for \$10 and \$15 paid by the treasurer on outstanding orders for the years 1884 and 1885, respectively, of which outstanding orders there was no record in the possession of the secretary, owing to which he was unable to report on the same; that we recommend the adoption by the society of laws that will effectually prevent a recurrence of such difficulties by keeping reliable records of all unpaid and outstanding orders; that we desire to call the attention of the public to the progress of the society for the past year, and especially its financial success, which has put it in a position to pay up all its indebtedness excepting the sum of \$25,214.50, which it will be able to meet upon receiving the special appropriation of the legislature of 1887, together with its other reliable resources; when said appropriation becomes available in August next the society will be out of debt and in a position to get along without further aid from the state.

We beg leave to append hereto a brief summary of the financial transactions of the said society for the year ending Dec. 10, 1887, as audited and approved by this board:

## RECEIPTS.

Balance on hand.....	\$896 55
Received for tickets sold and membership.....	55,975 75
Received for privileges, pools and commissions.....	6,677 77
Received for entrance money, fines and suspensions.....	9,832 50
Received for stable rent and pasturage.....	1,181 04
Received for hay and forage sold.....	382 10
Received for annual state appropriation.....	4,000 00
Received for special state appropriation.....	25,000 00
Making a total of receipts for the year of.....	\$103,945 71

## DISBURSEMENTS.

Paid orders issued during year.....	\$100,765 57
Paid outstanding orders issued previous year.....	27 23
Balance in treasury.....	3,152 91
	<hr/>
	\$103,945 71

## RESOURCES.

Cash in treasurer's hands Dec. 10, 1887.....	\$3,152 91
Credits due on suspensions and entrance money.....	995 00
Rent of race track.....	200 00
Stable rent.....	15 00
Sundry petty accounts.....	44 82
Special state appropriation.....	25,000 00
	<hr/>
Making a total of resources (cash and credits).....	\$29,407 73

## LIABILITIES.

Bank indebtedness (principal).....	\$24,500 00
Interest on same Aug. 4, 1887, at 6 per cent, to Dec. 10, 1887.....	514 50
Outstanding claims estimated at.....	200 00
Balance cash and credits over liabilities.....	4,193 23
	<hr/>
	\$29,407 73
Net resources as above.....	\$4,193 23

The secretary of the society has been of much aid to the committee in auditing the accounts, and appears to have given intelligent supervision and attention to the performance of his duties.

In connection with the auditing of the foregoing accounts, we learn that no official bond has been executed by the secretary and treasurer during the past year, to which omission we would respectfully call the attention of the society.

All of which is most respectfully submitted.

Dated at St. Paul this tenth day of January, 1888.

OTTO E. NAEGLE,

HENRY FEIG,

A. L. BRADFORD,

A. R. MCGILL,

*Board of Auditors.*

Mr. Johnson called the attention of the board to the fact that Manager Cooper had never received any pay whatever on account of services rendered for and expenses incurred on account of the state agricultural society during the year 1886, whereas

all the other members had received pay for said service, and he moved that the sum of two hundred and fifty dollars be allowed Mr. Cooper for his services and expenses in 1886.

Carried unanimously.

Mr. Pillsbury read a communication asking upon what terms the state fair grounds could be secured for a public stock sale in April, and on motion it was voted that breeders of blooded stock in Minnesota be invited to hold their annual and semi-annual sales upon the fair grounds without charge other than for actual expenses incurred by the society on account of said sales.

H. E. Hoard, of the committee on by-laws, presented a draft of the by-laws recommended by the committee, with additional sections recommended by the president, all of which, with the exception of section ten, relating to the compensation of officers, had been approved by the state board of auditors. The board thereupon proceeded to consider, amend and take action upon the same by sections, as follows:

BY-LAWS GOVERNING THE BOARD OF MANAGERS OF THE MINNESOTA  
STATE AGRICULTURAL SOCIETY, ADOPTED JAN. 7, 1888.

SECTION 1. *Name.* This society shall be known as the Minnesota State Agricultural Society and shall be controlled by a president, two vice presidents and a board of managers, pursuant to an act to reorganize the state agricultural society, approved March 3, 1887.

SEC. 2. *Object.* The society has for its objects the advancement of agriculture, horticulture and the mechanical and household arts.

SEC. 3. *Officers.* The officers of this society shall consist of a president, two vice presidents, six managers and a secretary and treasurer. The president and two vice presidents and two managers shall be chosen by ballot at each annual meeting; the president and vice presidents for one year and the managers for three years. Vacancies in the board of managers shall also be filled by election by ballot for the unexpired term at the annual meeting. The secretary and treasurer shall be elected by the president, vice presidents and managers as provided for in said act, and shall hold their office for one year and until their successors are elected and qualified.

SEC. 4. *Duties of President.* It shall be the duty of the president to preside at all meetings of the society and board of managers, and to conduct such meetings according to the rules of parliamentary practice so far as the same may apply, and upon all questions in case of a tie he shall give the casting vote. To sign all instruments in writing binding the society. All life and honorary memberships and all orders on the state treasurer and on the treasurer of the society for payments to be made from its treasury. To transmit all reports made to him to the board of managers at the next meeting after their receipt; to call meetings of the board whenever he deems it necessary and also, upon the written request of two or more members, said meetings to be called through the secretary by giving not less than five (5) days' notice in writing.



To inspect the fair grounds after they shall have been prepared and suggest such modifications or further preparation as he may deem necessary. To formally open the fair at such time and place as the board of managers may prescribe, and, as the executive head of the society, to have general supervision and control of the entire exhibition, subject only to the authority of the board of managers. He shall have the power, with the concurrence of the board of managers, to appoint any person to any office that shall have become vacant, said appointment to continue during the pleasure of the board of managers, but not longer than for the unexpired term; and in case of vacancies on the board of managers, not longer than until the next annual meeting.

He shall, also, with the concurrence of the board, appoint the superintendents of the several departments of the annual fair, a marshal, and the judges and such other officers and committees as may be deemed necessary; and it is made his special duty to appoint and commission all police officers by a written certificate signed by him and filed with the secretary.

He shall have power to create a vacancy in any office of the society by peremptorily removing said officer *for cause*, but he shall not remove any officer appointed by the board of managers to take the place of any officer appointed by him.

He shall perform such other duties as may be required of him by the laws of the State of Minnesota, by these by-laws, or by the board of managers, and may be removed from office at any time *for cause* by a resolution adopted by a majority of the board of managers, in which event, or in case of a vacancy in said office from any other cause, the vice presidents shall succeed to the presidency in the order of their election.

SEC. 5. *Vice Presidents.* In the absence of the president the vice presidents in the order of their election shall have the power and shall perform the duties of the president. They shall also have the same voice in the control of affairs of the society as other members of the board.

In the absence of both president and vice presidents at any meeting, the board of managers shall elect a president *pro tem.*, who, for that meeting shall be invested with all the powers of the president.

SEC. 6. *Managers.* The board of managers shall have general charge with the president and vice presidents of all the property and interests of the society and shall make all necessary arrangements for the holding and management of an annual state fair and such other exhibitions as the welfare of the society and the interests of industry may require, and shall carry out the objects of the society as stated in section two of these by-laws.

They shall have power to authorize, concur in, or reject the appointments made by the president and may by resolution adopted by the majority of the board, appoint others in place of those rejected. They shall define the duties not herein defined and fix the salaries and compensation of all officers and employees. They shall fix the dates of the annual fair; receive and act upon all matters submitted to them by the president; audit all bills and make all purchases unless the same shall be delegated by them to a committee of auditors and a purchasing agent.

They shall arrange in their classes the premiums, purses and awards to be offered at the annual fair and publish the same with such rules and regulations for the government thereof as they may adopt.



SEC. 7. *Executive Committee.* At the first regular meeting of the board of managers held after the annual meeting of the state agricultural society two members of the board of managers shall be named by the board, who, in connection with the president, shall constitute an executive committee, who may from time to time advise with the secretary upon any matters pertaining to the management of the fair requiring immediate action, pending a full meeting of the board. The action of said committee shall be ratified and confirmed by the board at its next meeting or as soon as practicable. A record of the meeting and action of said committee shall be kept by the secretary, and after said record has been approved by the board it shall be duly inscribed in the record book of the society.

SEC. 8. *Secretary.* It shall be the duty of the secretary to keep the official records and books of the society and to make a faithful record of the proceedings of each meeting of the board and of the society; to keep such records in a condition for the convenient reference of any members thereof at any time; to conduct the official and business correspondence of the society; issue calls for special and regular meetings when required to do so; draw and countersign all orders issued on the treasurer that may have been authorized or allowed; deliver the same to the parties in whose favor they are drawn, taking a receipt therefor when practicable; keep an accurate record of all bills presented and all orders so issued, with their date, number and amount and the name of the claimant and the nature of the claim.

He shall keep an account of all moneys due the society, in all cases holding the parties so indebted responsible therefor until they shall present a receipt from the treasurer showing that the same has been paid, and shall report to the treasurer for collection all such accounts, and at any time make such written statements and reports to the president or board of managers as they may require.

He shall in all things co-operate with the president and board for the furtherance of the interests of the society and the preparation and management of its annual exhibitions, and shall have entire supervision and control of the books of entry thereat. He shall, on or before the tenth day of December in each year make an annual report to the governor showing in detail the proceedings, business and financial condition of the society for the current year and such other information as shall be of interest to the public, which report shall be examined and passed upon by the state board of auditors and published annually in like manner as other reports of state officers.

He shall, in the absence of the treasurer, collect all money necessary to be collected and pay the same over to the treasurer at the earliest opportunity, furnishing a statement of the items so collected and their source and nature, and shall furnish a good and sufficient bond in such penal sum as shall be satisfactory and acceptable to the board for the faithful performance of his duties as secretary.

SEC. 9. *Treasurer.* It shall be the duty of the treasurer to receive all moneys due the society from whatever source and to keep a full and faithful record of all receipts of money coming into his hands and of the source from whence derived, and to have the same open at all times to the inspection of any persons authorized to make such examination; to pay out the moneys of the society only upon the orders of the president, countersigned by the secre-

tary, which orders so paid must be preserved and returned as vouchers, showing that the sums therein named have been by him so paid. He shall keep a record of every order by him paid, with the time and manner of payment, and on or before the tenth day of December in each year he shall make a detailed statement and report of the receipts and disbursements for the year, in duplicate, one copy to be filed with the secretary and the other, with accompanying vouchers, to be filed with the governor as a part of the society's annual report.

He shall, before entering upon the duties of his office, furnish a good and sufficient bond in such amount and with such sureties as shall be satisfactory and acceptable to the board, conditioned upon the faithful performance of his duties as treasurer.

SEC. 10. *Compensation.* The president, vice presidents and members of the board of managers shall receive for their services the sum of two hundred and fifty dollars (\$250) per year and mileage expenses in going to and returning from the necessary meetings of the society or the meetings of the board of managers or executive committee. The secretary shall draw his warrant upon the treasurer in favor of the several members upon bills duly rendered.

SEC. 11. *Order of Business.* The order of business at all meetings of the board of managers shall be as follows:

1. Calling the roll of members.
2. Reading, correction, and approval of the minutes of previous meetings.
3. Reports of officers and committees.
4. Unfinished business of previous meetings.
5. New and special business.
6. Communications, discussions, etc.
7. Elections, appointments, etc.

SEC. 12. *Amendments.* These by-laws may be altered or amended at any meeting of the board of managers, said alterations or amendments to go into effect on approval of the board of auditors.

The foregoing by-laws (except such alterations as are noted in the margin as having been made subsequently to the action of this board) are herewith submitted and approved.

OTTO E. NAEGLÉ,  
A. L. BRADFORD,  
HENRY FEIG,  
A. R. MCGILL,

*Board of Auditors.*

Dated this tenth day of January, 1888.

In the matter of the proposed relief of Geo. D. Knox, injured at the sham battle Sept. 7, 1887, and for whose relief the society at its annual meeting instructed the board to send immediately the sum of \$500, and to grant such further relief as in their judgment may be needful, not to exceed \$2,000; on motion further action in the said matter was postponed until the board could

obtain the opinion of the attorney general of Minnesota as to their authority to act in the premises.

The secretary reported the action and recommendations of the Western States Fair Association that convened in Chicago Nov. 16, 1887, in relation to the time for the fair of 1888, and by which the said association recommended that the Minnesota State Fair be held on the tenth to the fifteenth, inclusive, of September, 1888, and on motion the date of the coming fair was so fixed as recommended. Further action on the resolutions and recommendations of the Western States Fair Association was postponed until the next meeting.

On motion it was voted that Myers & Carpenter be paid the price charged for the third grand silver cup ordered last season on condition that they make good the loss to the society of having the engraving on the same changed so as to be as first ordered.

On motion Messrs. Cooper, Chambers, Cosgrove and Norrish, were appointed a committee to consider the revision of the premium list and to report upon the same with their recommendation at the next meeting.

The next thing in order being the election of a secretary and treasurer for the ensuing year, a letter was presented from H. E. Hoard, secretary, and read, in which he reviewed the circumstances of his election and the work in which he had engaged, and in which letter he withdrew his name as a "candidate" for office.

On motion it was voted that, as an expression of the appreciation of the board of the honorable and patriotic position taken by the secretary, and also as an expression of our appreciation of his work and our confidence in and respect for him as a man, that the secretary's letter be received and spread upon the record as a part of the proceedings of this meeting. The following is the letter referred to:

*To the Honorable Board of Managers of the Minnesota State Agricultural Society,*

GENTLEMEN: For the past year I have held the office of secretary of this society and of your honorable board, by virtue of election at the annual meeting held in January, 1887. Of the circumstances of my election it is needless to speak, further than to say that I did not seek the office nor was I responsible for the bitter partisan feeling exhibited, and which showed that the society was far from being united and harmonious in its work and efforts at that time.



Regretting that there should be such internal strife in the society, I was rejoiced to see the evidences of a more harmonious feeling among the members of the board, and was induced to accept chiefly because I was assured by some of your members that steps already inaugurated would prevent a further recurrence of such scenes, by leaving the selection of secretary and treasurer entirely with the board itself instead of making it, as heretofore, one of the chief issues of the annual meeting. And feeling confident that I might be able to accomplish *something* in bringing about a better state of feeling, and in putting the society upon a more solid and satisfactory basis I accepted the trust, and have labored to the best of my ability and with no other end in view.

There are those among you who know something of the peculiarly embarrassing circumstances under which I have labored; without a large acquaintance in the state which had been my home for less than five years; without experience in the management of such great fairs; without such books, files and records as *should* be found in a well established and well conducted office of this kind to refer to and be guided by; and without that united and helpful support from all quarters that was so much needed and that would have been of so much value, I soon found myself in charge of the details of a *most stupendous undertaking* and of the business and correspondence of an institution that was loaded down with debts and with few resources to speak of for their extinguishment.

At the beginning of last year the obligations of this society in bank indebtedness, accumulated interest, and old and unsettled claims amounted in round numbers to \$50,000 and it had less than \$1,000 at its command in cash or credits. Most of this indebtedness was in the form of notes signed or guaranteed by individuals who had rallied to the support of the former management; these debts could be justly considered as debts of honor and they *must be paid*.

The first thing necessary was to provide for their extinguishment, a matter that your board had referred to a committee for consideration. It was my pleasure to assist to the extent of my power, in securing from the state a special appropriation for that purpose, and I also wish to bear witness to the earnest, faithful work of other members of the board who were also in the legislature, and of those on the committee and on the board who were not, toward securing said appropriation, and to say

that more faithful service was never rendered and that the appropriation was finally secured *only* as the result of the most earnest, careful and persistent efforts. Realizing also, as did others, that the future prosperity of the society depended in large measure upon the complete eradication of all sectional and partisan issues and the establishment of the highest degree of harmony and concord that could be attained. I gladly voted for and advocated the changes in the law recommended by your committee and was rejoiced to know that they finally passed and were approved, and that thereafter the board of managers would not be compelled to accept the service of servants who might not be in complete sympathy with them in all their undertakings.

Relative to the year's work, I am exceedingly glad that I can say it has been a most successful year, both financially and otherwise, and that the society is to-day in a far better and more prosperous condition than it has ever been before. Instead of a \$50,000 debt, and no money or other resources to meet it with, we are now, practically speaking, out of debt and with money enough to carry the society safely through until another year. More than \$26,000 of the indebtedness of the society has been paid up during the past year, and the balance is fully provided for by the balance of state appropriation made in 1887, but not yet available. Some \$11,000 worth of permanent improvements have been added during the year and paid for entirely out of the profits of the fair, and the grounds and buildings are now in most excellent condition for permanent occupancy without need of more than trifling expenditures to keep them so. Over \$42,000 of the receipts of the last fair were paid back to its patrons in premiums, purses and special attractions alone, being nearly three times as much as was ever paid back in that way before, while the current expenses of the year, including salaries of officers, expenses of managers, agents and superintendents, compensation of assistants, judges, police, ticket sellers, gate keepers, team work, and labor in the various departments and about the grounds during the season, with advertising, fair printing, bill posting, freight, postage, express, telegraphing, forage, fuel, oil, and incidentals, all told, aggregate less than \$20,000, a sum that compares most favorably with the expense account of other years, especially when we remember that we held an eight days' fair.

The annual report of the society is not yet published, but the accompanying statement will give a fair idea of the present



financial condition, and of the vast business done during the past year, which aggregates nearly double that of the year before, more than five times that of three and four years ago, and ten times that of seven years ago. Such a marvelous increase of business can not be other than satisfactory to the management and especially to those members who have seen it grow and develop under their watchful care. Last year and the year before the board was compelled to apply frequently at the bank for loans, but this year the society has borrowed no money, and gives no notes or other obligations to secure the means for its operations. The receipts of the society for the year were over \$105,000, and of the fair proper about \$80,000, while the net profits of the fair were some \$18,000, a large part of which was invested in permanent improvements, the total expenditure aggregating over \$100,000.

I am pleased to be able to present to you the official report of the board of state auditors, showing that they have carefully examined in detail the financial statement of the secretary, and original bills, pay rolls, records and accounts of the society, and compared them with the treasurer's statement, and with the orders issued and redeemed, and that they find them satisfactory and correct. Of one thing I am fully persuaded, that, as the society gets richer and has a larger revenue at its command, the tendency and temptation to "bleed" it is greatly increased. It requires the most watchful care to protect it from the unscrupulous who seek its patronage simply for the money they think they can make out of it. I have had occasion to know that there are men who would stoop to almost any subterfuge if only they might secure a chance to plunder this society out of some of its justly earned possessions, and I can not too strongly recommend that you adopt the plan of holding frequent and stated meetings of the board, and of its executive and auditing committees, and that you have one purchasing agent who will purchase prudently and with caution, and that you require a strict enforcement of the rule that no bills shall be paid until properly attested by the officer or agent receiving and making use of the goods, and by the attestation of the purchasing agent, and then only after a careful examination and allowance by the auditing committee. Also, that no one but the treasurer, or some one especially commissioned by and acting for him, and for whose acts he will become responsible, be allowed to collect or receive any monies due the society from any

source whatever. Also, that a rule be adopted and strictly enforced, prohibiting any officer or assistant from engaging, either directly or indirectly, or in any way becoming personally interested in any business enterprise connected with the fair association, the fair grounds, or the fair itself. I am fully satisfied that had such rules been made and strictly enforced during the past year the society would not only be some thousands of dollars better off financially, but that its good name would not have suffered so much in the community.

And now, gentlemen of the board, permit me to personally thank you for the courteous manner in which you received me as your secretary and for the kindness and consideration that has marked your treatment of me during the years intercourse; for my successor I bespeak the same, and if possible, greater consideration, in order to secure at his hands the greatest service in your behalf. And as the office I have held came to me without solicitation on my part so do I now freely surrender it and ask that you take no account of personal interests or personal friendships in choosing my successor, but that you be guided wholly by your best judgment and convictions as to what is most needed and will best fill the place. I ask that you choose clean, honest and capable men for this and all other stations, for with such only are you and the society you serve truly safe, and with such only can it permanently prosper. Assuring you not only of my earnest wishes for your personal welfare and prosperity but also of my sincere desire that you may realize the largest measure of success in the great work in which you are engaged, I am,

Respectfully yours,

H. E. HOARD,

*Secretary.*

HAMLIN, Jan. 10, 1888.

The question of the election of a secretary and treasurer for the ensuing year having been considered, on motion, it was voted that said election be postponed to an adjourned meeting of the board to be held at such time when the president and all members could be present.

On motion the time for such adjourned meeting was fixed at four weeks from to-day (Tuesday, Feb. 14, 1888,) and the secretary was instructed to notify all members in advance thereof, stating whether or not the president would be present in order that a further adjournment might be taken at that time if he

could not be present without those living at a great distance being compelled to attend.

On motion the meeting was thereupon adjourned until Tuesday, Feb. 14, 1888, at 10 o'clock P. M.

H. E. HOARD,  
*Secretary.*

At a meeting of the board of managers of the Minnesota State Agricultural Society, at Merchants National Bank, St. Paul, Feb. 14, 1888, there were present F. C. Pillsbury, first vice president, managers John F. Norrish and John Cooper, and Secretary H. E. Hoard.

Meeting called to order by Vice President Pillsbury, it appearing there was no quorum present, on motion, the meeting adjourned until Tuesday, March 6th, at 10 o'clock A. M., at the Merchants National Bank, St. Paul.

H. E. HOARD,  
*Secretary.*

At a meeting of the board of managers of the Minnesota State Agricultural society held pursuant to adjournment at the Merchants National Bank, St. Paul, on Tuesday, March 6, 1888 at 11 o'clock A. M., there were present:

W. R. Merriam, president, F. C. Pillsbury, first vice president, James McHench, second vice president, with A. N. Johnson, John F. Norrish, John Cooper, L. H. Prosser, C. N. Cosgrove, and Clarke Chambers, managers, and H. E. Hoard, secretary.

On a call of the roll the above named being present it was declared that the full board was present.

On motion the reading of the minutes of the last meeting was dispensed with.

Mr. Pillsbury, of the committee on diplomas made a report and submitted a design and proposition which was on motion approved, and the committee authorized to order the same of the Western Bank Note Company of Chicago.

The committee on premium list reported the work of revision approved by them and submitted certain questions which they desired to have settled by the board.

On motion the board adopted the following:

*Resolved*, That grade stock shall include such only as comes from pure blood sire and grade or native dams.

*Resolved*, That live stock be judged by a scale of points in the

case of all breeds of which there is a recognized scale adopted by an American association of breeders of such stock.

*Resolved*, That the pro rata butter classes all entries scoring less than 85 points be excluded from participation in the premiums, but that in the division of premiums among those scoring 85 points and over, no account be taken of points less than 75, but that the premiums be pro rated according to the standing of said exhibits above 75, as, for instance, an exhibit scoring 85 shall count as 10, an exhibit scoring 90 as 15, an exhibit of 95 as 20, etc. This being the basis of distribution of the premiums.

*Resolved*, That the announcement "competition open to the world" be modified so as to be confined in certain departments to the State of Minnesota.

*Resolved*, That the sum of \$600 be offered for Minnesota county exhibits upon the following basis: First, \$300; second, \$150; third, \$90; fourth, \$60; *provided*, that the counties of Ramsey and Hennepin shall not be allowed to compete.

*Resolved*, That sweepstakes herd premiums be offered as follows:

## BEEF BREEDS.

	First.	Second.
Young Herd.—Bull and four females under two years, owned by the exhibitor.....	\$50	\$25
Get of a bull, four or more, any age or sex.....	50	25

## MILK BREEDS.

Young Herd.—Bull and four females under two years.....	\$50	\$25
Get of a bull, four or more, any age or sex.....	50	25

On motion the committee on premium list was continued with instructions to complete the same without further approval on the part of the board.

The board thereupon proceeded to the election of a secretary for the ensuing year. Secretary Hoard referred to the fact that although he had at a previous meeting formally withdrawn his name as a candidate for re-election, as was shown by the records, still he would retire in order that the utmost freedom might be had in the discussion of the situation and in the election of his successor. Mr. Johnson was thereupon appointed as acting secretary during his absence.

After a full discussion, on motion an informal ballot was taken for secretary, with the following results: H. R. Denny, received eight votes, and H. E. Hoard, one vote. Moved by Manager



Norrish that a formal ballot be taken, which was done and H. R. Denny received nine votes and was declared unanimously elected.

On motion a formal ballot was taken for treasurer and Frank J. Wilcox received nine votes and was declared unanimously elected.

On motion John Cooper and John F. Norrish were elected as members of the executive committee to act with the president and vice president.

Moved by Mr. Chambers, that the salary of the treasurer be fixed at the sum of five hundred per annum for the ensuing year. Motion carried.

Mr. Chambers offered the following which was adopted:

*Resolved*, That the secretary act as purchasing agent for the society, giving printed orders for all necessary supplies, materials, etc., and that no bills be recognized unless they have attached to them the order of the purchasing agent.

The following resolution was offered and adopted:

*Resolved*, That the office of superintendent of the grounds be created with duties as follows: The superintendent of grounds shall have full charge of all buildings, tools, etc., on the grounds of the society, and shall be responsible for their good condition and order. All repairs and improvements shall be made under his direction and the property put in order for the annual exhibition. He shall be responsible directly to the board for the proper discharge of his duty. He shall make a requisition upon the secretary for all materials required for use and all money necessary for payment of help, etc. All money derived from rental, use of track, pasturage, buildings, etc., shall be at once paid over to the secretary and a receipt taken therefor. He shall be elected by the board and serve during their pleasure. In case of vacancy or absence in the office, the secretary of the society shall be superintendent.

Moved by Mr. Norrish and carried, that W. F. Cross be elected as superintendent of the state fair grounds at a salary of one hundred dollars per month for seven months commencing April 1, next to Nov. 1, 1888.

Mr. Prosser offered the following which was adopted by a vote of the board:

*Resolved*, That no so-called "fakir" devices be allowed on the state fair grounds at any time.

Mr. Norrish offered the following which was adopted by a vote of the board:

*Resolved*, That all member of this board or employes of this society be prohibited from furnishing supplies or having interest in any contracts on the state fair grounds.



Mr. Pillsbury offered the following which was adopted by a vote of the board :

*Resolved*, That we give the use of the grounds to the Twin City Driving Club during their race meeting to be held on the third, fourth, fifth and sixth of July, 1888.

Mr. Norrish offered the following which was adopted :

WHEREAS, The American Hereford Association have offered two hundred and fifty dollars for premiums to be awarded at some state fair to be held in some state west of the Mississippi river, therefore be it

*Resolved*, That they be invited to make said exhibit at our state fair for 1888, and that the courtesies of the association be extended to them with free use of the grounds and judges, and that a copy of this resolution be sent to the secretary, at Independence, Mo.

Mr. Prosser offered the following resolution :

WHEREAS, Geo. D. Knox, of Mower county, Minn., was seriously injured in the sham battle on the last day of the state fair in 1887, and,

WHEREAS, The state agricultural society at its last annual meeting passed a resolution requesting the board of managers of the state agricultural society to render such aid to the said Geo. D. Knox as they might find his necessities demanded not exceeding \$2,000, therefore be it

*Resolved*, By the managers of the Minnesota State Agricultural Society that the sum of \$1,000 is hereby appropriated to the said Geo. D. Knox and the secretary is hereby authorized to draw an order therefor.

The resolution was discussed and on motion laid on the table.

Moved that the motion fixing the salary of superintendent of grounds be reconsidered. Carried. Mr. Prosser moved that the salary of superintendent of grounds be and is hereby fixed at one hundred and twenty-five dollars per month for seven months commencing April 1st.

Moved that the salary of secretary be and hereby is fixed at \$2,500 for the ensuing year. Carried.

On motion the meeting adjourned.

H. E. HOARD,  
*Acting Secretary.*

At a meeting of the board of managers of the state agricultural society held at the Merchants Hotel in St. Paul on March 15, 1888, there were present Hon. W. R. Merriam, president; John Cooper, J. F. Norrish, Clarke Chambers, C. E. Cosgrove, and H. R. Denny, secretary.

It was decided to add to the premium list a diploma for each

class of horses and cattle for the best male and female of any age or breed.

Decided also that the premiums on poultry be revised by the state poultry association.

The president appointed the following persons as members of committees and superintendents of divisions, viz.:

#### COMMITTEES.

*Reception*—The president, vice president and board.

*Racing*—F. C. Pillsbury, E. C. Long, C. Chambers.

*Printing*—H. R. Denny, C. Chambers, A. N. Johnson.

*Transportation*—F. C. Pillsbury, A. N. Johnson, J. F. Norrish, J. Cooper.

*Music*—J. F. Norrish, J. Cooper, H. R. Denny.

*Privileges*—J. F. Norrish, C. N. Cosgrove, J. Cooper.

*Tickets*—John Cooper, J. McHench, L. H. Prosser.

#### SUPERINTENDENTS.

*General Superintendent*—H. R. Denny, Hamline.

*Superintendent of Grounds*—Wm. F. Cross, Hamline.

*Superintendent of Gates*—John Cooper, St. Cloud.

*Superintendent of Forage*—A. N. Johnson, Benson.

*Supt. of Division A—Horses*: Clarke Chambers, Owatonna.

*Supt. of Division B—Cattle*: G. M. Tousley, Le Sueur.

*Supt. of Division C—Sheep and Swine*: L. H. Prosser, Wykoff.

*Supt. of Division D—Dairy Products*: S. M. Emery, Lake City.

*Supt. of Division E—Manufactures*: E. A. Young, St. Paul.

*Supt. of Division F—Art Gallery*: Vincent DeGernon, St. Paul.

*Supt. of Division G, H and I—Horticulture, Vegetables and Culinary*: Wyman Elliot, Minneapolis.

*Supt. of Division K—Grain and Farm Products*: Prof. E. D. Porter, St. Anthony Park.

*Supt. of Division L—Farming Implements*: W. M. Bushnell, St. Paul.

*Supt. of Division M—Poultry*: W. A. Gates, Sauk Centre.

At a meeting of the board of managers of the state agricultural society, held at the Merchants Hotel, in St. Paul, March 26, 1888, there were present F. C. Pillsbury, first vice president, John Cooper, J. F. Norrish, Clarke Chambers, C. N. Cosgrove and H. R. Denny, secretary.

A letter from Davis, Kellogg and Severance was presented, in which claim is made for forty-five dollars, in favor of Geo. Magee.

The secretary was ordered to confer with Mr. Magee in relation to it. Several bills were audited and the meeting then adjourned.

H. R. DENNY,  
Secretary.

A meeting of the board of managers was held at the Merchants Hotel in St. Paul, May 15, 1888, President W. R. Merriam in the chair.

Present, John Cooper, J. F. Norrish, Clarke Chambers, C. N. Cosgrove and L. H. Prosser. The full board not being present, the meeting adjourned to May 16, to meet at the Merchants Hotel, at 8 o'clock P. M.

H. R. DENNY,  
*Secretary.*

A meeting of the board of managers was held at the Merchants Hotel in St. Paul, May 16, 1888, at 8 o'clock P. M., President W. R. Merriam in the chair.

Present—Hon. F. C. Pillsbury, first vice president, John Cooper, J. F. Norrish, Clarke Chambers, L. H. Prosser, A. N. Johnson.

The following circular letter which had been received from a number of Grand Army Posts in the state was read, viz.:

“HEADQUARTERS BURDICK POST,  
“DEPARTMENT OF MINNESOTA,  
SPRING VALLEY, MINN., — 1888.

[Circular letter.]

“*Comrades of ——— Post No. — G. A. R.:*

“During the progress of the state agricultural fair, early last September, comrade Geo. D. Knox, of this post suffered a severe injury to his eyes during the sham battle by reason of the accidental discharge of a gun in the hands of another party in the employ of the association. This comrade Knox has never recovered from this very serious injury. He is poor and distressed, almost blind, unable to work, and property and means almost exhausted. His case appeals to the highest sentiment of our order, and to its most sacred obligations. The state agricultural society, at its last annual meeting, voted to pay to this comrade a certain sum of money; they have paid part of the sum so voted. The board of managers, who are creatures of the society, now refuse to pay the balance which our poor, distressed comrade needs so badly. We therefore ask of you that you indorse the following preamble and resolutions of Burdick Post and send the

same to the president of the state agricultural society, signed by your commander and adjutant.

R. L. MOORE,  
E. D. HAMMER,  
A. R. BURLESON,  
R. C. LIVINGSTON,

*Committee of Burdick Post No. 3, Department Minn., G. A. R."*

*To the President and Board of Managers of the Minnesota State Agricultural Society:*

WHEREAS, The state agricultural society did vote at its last annual meeting to pay a certain sum of money to George D. Knox, who was disabled while in the service of said society; and

WHEREAS, Your only duty was to ascertain his needs, which duty has been performed for you; therefore, be it

*Resolved*, That we demand of you that you obey the mandate of the society in letter and spirit.

*Resolved*, That we, as a great and powerful organization will applaud your prompt and cheerful compliance with the letter and spirit of that resolution, or condemn you accordingly, if you fail to comply with its reasonable and humane command to you to alleviate as far as possible the sufferings of our comrade George D. Knox, by paying him the full amount voted to him by your said society.

.....Adjutant,

.....Commander,  
Post No.... Dept. Minn. G. A. R.

Col. C. G. Edwards of Spring Valley, Minn., was invited to address the meeting which he did at length favoring the payment of the full amount of the appropriation to George D. Knox.

After discussion Hon. L. H. Prosser offered the following resolution which was unanimously adopted.

*Resolved*, That the sum of two hundred and fifty dollars is hereby appropriated to be placed in the hands of Col. C. G. Edwards for George D. Knox to assist him in procuring medical treatment, and that the secretary is instructed to request Hon. J. P. Rea, Hon. H. A. Castle, and Hon. L. L. Wheelock to make a careful investigation, after full information of all the facts



relative to the case of the said Knox and to make report what sum, if any, should be further donated by this society.

The meeting then adjourned.

H. R. DENNY,  
*Secretary.*

A meeting of the board of managers was held at the Merchants National Bank, in St. Paul, Minn., July 17, 1888.

Present, Hon. W. R. Merriam, president; F. C. Pillsbury, first vice president; Clarke Chambers, John Cooper, C. N. Cosgrove, J. F. Norrish, A. N. Johnson, L. H. Prosser and H. R. Denny, secretary.

President Merriam announced the appointment of Capt. A. M. Lowell to the office of chief marshal during the coming fair.

The committee on music were empowered to enter into a contract with George Seibert to furnish music for the fair grounds, he to receive the sum of \$1,000 for five days, commencing on Tuesday, the eleventh day of September, and the said Seibert also to furnish teams in St. Paul and Minneapolis, and drive through the streets of both cities each morning for five days, furnishing music to advertise the fair.

On motion, complimentaries were ordered issued to the following persons, viz.: The president of the board, twenty-five; each of the other members of the board, ten; one to each member of the legislature and senate, editors and all officers of railroads; also to the governor and state officers.

On motion, the executive committee were empowered to rent the dining hall on the fair grounds during the coming fair.

On motion of J. F. Norrish, superintendents not members of the board were each allowed the sum of one hundred dollars for their services during the fair. The superintendants of all departments being present, reported on the probabilities of a grand exhibit, and were unanimously of the opinion that all of the departments would be well filled.

Adjourned.

H. R. DENNY,  
*Secretary.*

HAMLIN, MINN., Aug. 25, 1888.

The board of managers met at the secretary's office at 11 o'clock A. M.

Present — Hon. W. R. Merriam, president; F. C. Pillsbury,



first vice president; James McHench, second vice president; Clarke Chambers, John Cooper, J. F. Norrish, L. H. Prosser, C. N. Cosgrove, A. N. Johnson, and H. R. Denny, secretary.

The bid of C. L. Smith, of Minneapolis, for furnishing five hundred evergreen trees at twenty cents each, to be set out and grounds cleaned before 6 o'clock P. M. Saturday, Sept. 8, 1888, was accepted.

It was decided to procure, if possible, the services of the following named gentlemen to act as judges during the fair, viz.: John Gibson, Wm. Taft, O. C. Gregg, M. Wallace, Wm. Moore, Theodore Lewis, Robert Miller.

After inspecting the grounds and buildings the meeting adjourned.

H. R. DENNY,  
*Secretary.*

HAMLIN, MINN., Sept. 11, 1888.

A meeting of the board of managers was held in the secretary's office.

Members present—Clarke Chambers, C. N. Cosgrove, John Cooper, L. H. Prosser, and H. R. Denny, secretary.

Clarke Chambers was elected chairman *pro tem*.

It was decided that coupon tickets for the fair, presented by parties having horses on the grounds, and who board outside the grounds, should be punched the first time presented, and the second time, said tickets to be taken up when presented the third time.

Adjourned.

H. R. DENNY,  
*Secretary.*

HAMLIN, Sept. 14, 1888.

A meeting of the board of managers was held in the secretary's office to consider protests offered by exhibitors.

Meeting called to order by W. R. Merriam, president. Present, J. F. Norrish, C. N. Cosgrove, L. H. Prosser, John Cooper. H. R. Denny, secretary.

All protests being withdrawn the meeting adjourned.

H. R. DENNY,  
*Secretary.*

A meeting of the board of managers was held at the Merchants Hotel in St. Paul, Minn, Nov. 30, 1888.

Present, Hon. W. R. Merriam, president, Hon. F. C. Pillsbury; first vice president; Hon. James McHench, second vice president, Clarke Chambers, John F. Norrish, C. N. Cosgrove, L. H. Prosser, A. N. Johnson, and H. R. Denny, secretary.

The meeting was called to order by the president at 2 o'clock P. M.

A statement of the receipts and disbursements of the society from Dec. 10, 1887, to Dec. 1, 1888, was presented, of which the following is a summary:

## RECEIPTS.

Balance on hand Dec. 10, 1887.....	\$3,152 91
Premium of 1887 returned.....	10 00
Receipts from fair of 1888.....	52,409 20
Balance of state appropriation.....	25,000 00
Southern Minnesota Fair Association, advertising.....	44 82
Entrance money, 1887.....	615 00
Stabling and pasturage, 1887.....	15 00
Suspensions, 1887.....	41 19
Sale of team.....	300 00
Total.....	<u>\$81,588 12</u>

## DISBURSEMENTS.

Paid on account indebtedness fairs 1885, 1886 and 1887.....	\$2,882 43
Paid notes, indebtedness 1885 and 1886.....	24,500 00
Paid interest, account 1885 and 1886.....	1,512 19
Disbursements, account fair 1888.....	45,452 99
Paid for permanent improvements, 1888.....	3,733 61
Cash in hands of hands of treasurer.....	2,391 51
Amounts due society.....	1,115 39
Total.....	<u>\$81,588 12</u>

The following report of Hon. J. P. Rea, Hon. L. L. Wheelock and Hon. H. A. Castle, the committee requested to examine into all matters relating to the injuries received by George D. Knox during the sham battle on the last day of the fair of 1887, was received and read, viz.:

*To whom it may concern:*

The undersigned, members of the Grand Army of the Republic, having been requested to investigate the matter of the injury to George D. Knox, of Burdick Post No. 3, Spring Valley, Minn., at the sham battle at the Minnesota State Fair, September, 1887, and the responsibility of the Minnesota State Agricultural Society in connection with said injury, and to advise the said society as to further disbursements in the premises, respectfully report that they find the facts to be as follows:

That in the summer of 1887 a committee of the Plummer Post of the Grand Army of the Republic contracted with the Minnesota State Agricultural Society for a stipulated share in the receipts of the day to produce a sham battle on Saturday of the fair week of that year on the fair grounds. The said Plummer Post committee contracting, among other things, to protect said agricultural society from all liability for damage to persons or property resulting from said sham battle.

That at the said sham battle comrade Knox, who participated therein at the special instance and request of said committee of the Plummer Post, was severely injured in both eyes by the discharge of a musket in the hands of another participant in said sham battle who was also there at the invitation of said committee.

That the injuries so received still afflict comrade Knox to the extent of a two-thirds disability from manual labor, according to expert testimony adduced before us, with little prospect of early improvement and no probability of permanent recovery.

That the state agricultural society, in November, 1887, by a vote of its managers appropriated and paid the sum of \$199.13 for surgical treatment and expenses for comrade Knox, Plummer Post, or its committee, paying an equal amount.

That in January, 1888, the annual meeting of the members of the state agricultural society adopted a resolution authorizing its board of managers to grant comrade Knox "such merciful aid as the law will permit," sending him at once a check for \$500, and such further sum as in their judgment may be needful, not exceeding \$2,000.

That in pursuance of this resolution the said board of managers paid the sum of \$500 therein specially authorized for the benefit of Comrade Knox, and in May, 1888, paid for his benefit the further sum of \$250, making a total of \$949.13 paid for his relief by said society up to the present time.

That Burdick Post on behalf of Comrade Knox has laid claim to the remainder of the sum of \$2,000, which it alleges was appropriated under the resolution quoted, and through circulars issued to other posts had brought great pressure to bear to enforce its payment.

That so far as we are informed, neither Plummer Post nor any other organization of the Grand Army of the Republic, except Burdick Post, to which Comrade Knox belonged, has contributed anything for his relief except the sum of \$199.13 donated by Plummer Post in November, 1887, as hereinbefore stated.

That Comrade Knox was dependent on his labor for the support of himself and family, and that being now disabled is in need of assistance.

With these facts before us, we must fully absolve the state agricultural society from all responsibility for the accident to Comrade Knox, and from all legal and moral liability for pecuniary damages.

If he had adequate means of support, this would end our findings. But it was plainly the intent of the society as evidenced by the action of the annual meeting of its members to generously authorize its board of managers to expend in the form of "merciful aid" some portion of the amount named, though not in any manner instructing them to expend all of it. It is as plainly the duty of comrades of the Grand Army of the Republic of the department of Minnesota to relieve the state agricultural society of this expenditure. One of the objects of our order is the relief of disabled and destitute comrades, no matter how the disability occurred; and this comrade's disability occurred in a quasi Grand Army service—a service rendered as the public generally, and as no doubt Comrade Knox himself supposed, for the purpose of swelling the charitable funds of the order. It is no part of the business or duty of the state agricultural society strictly speaking, to extend charity to anybody. But the society has volunteered assistance, and the board of managers have in effect thrown upon us the responsibility of deciding for them how much, if anything it shall be, beyond the generous amounts already contributed. We can not in face of immediate needs of our disabled comrade, and in the absence of any assurance that adequate help is available from Grand Army sources, reject this offer. We therefore recommend as follows:

That the Board of Managers of the Minnesota State Agricultural society pay the further sum of seven hundred and fifty dol-



lars into the hands of Comrades C. G. Edwards, R. L. Moore and W. W. Boticue, of Spring Valley, to be expended in their discretion, for the benefit of Comrade Knox and his family, and that in consideration thereof the said society be absolved from all further payments on his account from the appropriation of January, 1888, or otherwise, and receive the thanks of our order for its generosity.

That the commander of the department of Minnesota of the Grand Army of the Republic take measures to secure, by contributions from posts of the department or otherwise, a fund of at least equal amount for the benefit of Comrade Knox. We believe this unusual procedure to be justified by the peculiar circumstances of the case, and are confident that the comrades of this department will cheerfully testify in this manner their appreciation of what has been voluntarily done by an outside organization for the relief of a disabled ex-soldier.

Dated September, 1888.

JOHN P. REA,  
L. L. WHELOCK.  
H. A. CASTLE.

On motion the matter of payment of the sum recommended, viz., seven hundred and fifty dollars, was laid over until available funds shall be on hand to meet the same, and a vote of thanks was unanimously passed to Messrs. Rea, Wheelock and Castle, for their services.

On motion Clarke Chambers and the secretary were authorized to send the silver token now in the Merchants National Bank to Messrs. Bowman Bros, Waverly, Ia., as a mark of the appreciation of the society of their magnificent exhibit of standard bred trotting strains at the fair of 1888.

It was moved and carried that the sum of two hundred dollars be received from the Twin City Driving Club in full for all demands against them for rent of track and grounds for the past two years.

A proposition was received from the Twin City Jockey Club to rent the race track and grounds for races in the months of June and July each year for the period of five years, they to pay the sum of three hundred dollars (\$300) annually in advance, and guarantee the society from all loss or injury to the buildings or grounds.

Mr. Pillsbury moved that this board enter into a contract with



the Twin City Jockey Club to rent them the track and grounds a part of June and July each year for three years for the sum of three hundred dollars per year, payable annually in advance, and that a committee of three be appointed by the president to draw up a contract with provisions in accordance with the proposal, which motion prevailed, and the president appointed as such committee Messrs. Chambers, Pillsbury and Cosgrove.

Mr. Cosgrove moved that the cost of a topographical survey of the fair grounds, made in previous years, amounting to five hundred and forty-six 50-100 dollars, be paid whenever the society has available funds, and the secretary is authorized to draw an order on the treasurer for that amount in favor of the Merchants National Bank, and the motion was carried.

A receipt from William M. Bushnell for services as superintendent of division "L," was received, and read as follows:

"Received payment in full by the desire I have to promote the interests of the great State of Minnesota in my humble way through the Minnesota State Agricultural Society, whose officers and directors I have learned to respect and love.

Very cordially,

WILLIAM M. BUSHNELL."

A unanimous vote of thanks was tendered by the board to Mr. Bushnell for his very valuable services and patriotic devotion to the society.

Adjourned.

H. R. DENNY,  
*Secretary.*

# PREMIUMS AND AWARDS, 1888.

## DIVISION A.—HORSES AND MULES.

CLARKE CHAMBERS, *Superintendent.*

JOHN BYERS, *Assistant Superintendent.*

R. C. JUDSON, Judge of Classes 1, 18, 19, 20, 21.

WILLIAM H. TAFT, Judge of Classes 2, 3, 4, 13.

J. GIBSON, Judge of Classes 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, and 17.

### CLASS NO. 1.—THOROUGHbred STALLIONS.

(13 entries.)

	Premiums.	Amount.
Best stallion, John Bradford, Big Lake.....	First	\$25 00
Best two-year-old stallion, W. G. Stoner, Pipestone.....	First	10 00
Best yearling stallion, John Bradford, Big Lake.....	First	10 00
		<hr/> \$45 00

#### *Mares.*

Best brood mare, showing one or more colts, Robert S. Deakin, Macalester.....	First	\$25 00
Best brood mare, showing one or more colts, John Bradford, Big Lake.....	Second	15 00
Best two-year-old filly, Robert S. Deakin, Macalester.....	First	10 00
Best two-year-old filly, John Bradford, Big Lake.....	Second	5 00
Best yearling filly, John Bradford, Big Lake.....	First	5 00
		<hr/> \$60 00

#### *Sweepstakes.*

Best stallion, any age showing three or more colts, John Brad- ford, Big Lake.....		\$50 00
Best brood mare, any age, with colt at her side, John Brad- ford, Big Lake.....		25 00
		<hr/> \$75 00

## CLASS NO. 2.—TROTTING STRAINS, STANDARD BRED, AND REGISTERED.

(44 entries.)

*Stallions.*

	Premiums.	Amount.
Best stallion, five years old and upward, William Blowers, Waterloo, Ia. ....	First	\$25 00
Best stallion, five years old and upwards, Jay Ladue, Luverne, Minn. ....	Second	15 00
Best stallion four years old, T. B. Marrett, Rosemount, Minn. ....	First	20 00
Best stallion four years old, William Blowers, Waterloo, Iowa ....	Second	10 00
Best stallion three years old, O. J. Evans, Minneapolis. ....	First	15 00
Best stallion three years old, A. C. Bruce, Minneapolis. ....	Second	8 00
Best stallion two years old, T. B. Marrett, Rosemount. ....	First	10 00
Best stallion two years old, O. J. Evans, Minneapolis. ....	Second	5 00
		<hr/>
		\$108 00

*Mares.*

Best brood mare with sucking colt, William Blowers, Waterloo, Iowa. ....	First	25 00
Best brood mare with sucking colt, T. B. Marrett, Rosemount. ....	Second	15 00
Best filly, four years, Jay Ladue, Luverne, (special award)....	First	15 00
Best filly, three years old, M. Richardson, Rochester, (special award) .....	First	15 00
Best filly, two years old, William Blowers, Waterloo, Iowa. ....	First	10 00
Best filly, one year old, Jay Ladue, Luverne. ....	First	5 00
		<hr/>
		\$110 00

*Sweepstakes.*

Best stallion, any age, showing three or more of his get, William Blowers, Waterloo, Iowa. ....		\$50 00
For best trotting stallion, standard bred, showing five of his get, silver cup awarded by society, worth \$100, William Blowers, Waterloo, Iowa. ....		
		<hr/>
		\$150 00

## CLASS NO. 3.—TROTTING STRAINS NOT STANDARD BRED.

(28 entries.)

*Stallions.*

Best stallion, five years old and upwards, A. C. Bruce, Minneapolis. ....	First	\$25 00
Best stallion, four years old, August Westerson, Hastings. ....	First	20 00
Best stallion, four years old, James Edwards, Minneapolis. ....	Second	10 00
Best stallion, one year old, William Blowers, Waterloo, Iowa. ....	First	5 00
Best stallion, one year old, August Westerson, Hastings. ....	Second	3 00
		<hr/>
		\$63 00

*Mares and Geldings.*

	Premiums.	Amount.
Best brood mare, with sucking colt, August Westerson, Hastings.....	First	\$25 00
Best mare or gelding, five years old or upward, Samuel Dewing, Hutchinson.....	First	15 00
Best four-year-old filly or gelding, G. W. Nelson, Glencoe.....	First	15 00
Best two-year-old filly, A. C. Bruce, Minneapolis.....	First	10 00
Best two-year-old filly, August Westerson, Hastings.....	Second	5 00
Best pair of matched mares or geldings, or mare or gelding, O. J. Evans, Minneapolis.....	First	15 00
Best pair matched mares or geldings, or mare or gelding, William Blowers, Waterloo, Iowa.....	Second	10 00
		<hr/> \$95 00

*Sweepstakes.*

Best brood mare, any age, showing two or more colts, William Blowers, Waterloo, Iowa.....	\$25 00
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## CLASS NO. 4 — CARRIAGE TEAMS, MATCHED AND SINGLE. (STALLIONS EXCLUDED.)

(14 entries.)

Matched and mated carriage team, owned by exhibitor, C. D. Andrews, St. Paul.....		
	First	\$15 00
Matched and mated carriage team, owned by exhibitor, Woodbury Bros, Zumbrota, Minn.....		
	Second	10 00
Single gelding, John McPherson, St. Paul.....	First	10 00
Single gelding, John McPherson, St. Paul.....	Second	5 00
		<hr/> \$40 00

## CLASS NO. 5.— FRENCH COACH STALLIONS (Registered stock).

(19 entries.)

Best stallion, five years old and upwards, Pope and Stevens County Breeding Co., Hancock, Minn.....		
	First	\$25 00
Best stallion, five years old and upwards, Leonard Johnson, Northfield, Minn.....		
	Second	15 00
Best four-year-old stallion, A. K. Barnum, St. Paul.....	First	15 00
Best four-year-old stallion, Leonard Johnson, Northfield.....	Second	10 00
Best two-year-old stallion, Leonard Johnson, Northfield.....	First	10 00
		<hr/> \$75 00

*Mares.*

Best four-year-old filly, Leonard Johnson, Northfield.....	First	\$15 00
Best four-year-old filly, Leonard Johnson, Northfield.....	Second	10 00
Best two-year-old filly, Leonard Johnson, Northfield.....	First	10 00
Best two-year-old filly, Felix Peloguin, White Bear.....	Second	5 00
		<hr/> \$40 00

## CLASS NO. 6.—CLEVELAND BAYS.

(2 entries.)

*Stallions.*

	Premiums.	Amount.
Best stallion, four years old, Galbraith Bros., Janesville, Wis.	First	\$20 00
Best stallion, three years old, Pope and Stevens County Breeding Co., Hancock, Minn.....	First	15 00
		<hr/> \$35 00

## CLASS NO. 7.—DRAFT STALLIONS, PERCHERONS.

(Imported or full blood and Registered in American Percheron Stud Book.)

(111 entries.)

Best stallion, five years old and upward, Leonard Johnson & Son, Northfield.....	First	\$25 00
Best stallion, five years old and upward, Wm. Meis & Son, Hampton, Minn.....	Second	15 00
Best four-year-old stallion, Leonard Johnson & Son, Northfield	First	15 00
Best four-year-old stallion, T. L. & J. L. DeLancey, Northfield	Second	10 00
Best three-year-old stallion, Leonard Johnson & Son, Northfield	First	15 00
Best three-year-old stallion, T. L. & J. L. DeLancey, Northfield	Second	10 00
Best two-year-old, Leonard Johnson & Son, Northfield.....	First	10 00
Best two-year-old, T. L. & J. L. DeLancey, Northfield.....	Second	5 00
Best yearling, Leonard Johnson & Son, Northfield.....	First	5 00
		<hr/> \$110 00

*Brood Mares.*

Best brood mare, five years old and over, showing one or more colts, Leonard Johnson & Son, Northfield.....	First	\$25 00
Best brood mare, five years old and over, showing one or more colts, Leonard Johnson & Son, Northfield.....	Second	15 00
Best four-year-old filly, Leonard Johnson & Son, Northfield...	First	15 00
Best four-year-old filly, H. F. Brown, Minneapolis.....	Second	10 00
Best three-year-old, T. L. & J. L. DeLancey, Northfield.....	First	15 00
Best three-year-old, T. L. & J. L. DeLancey, Northfield.....	Second	5 00
Best two-year-old, Leonard Johnson & Son, Northfield.....	First	10 00
Best two-year-old, Leonard Johnson & Son, Northfield.....	Second	5 00
Best yearling, T. L. & J. L. DeLancey, Northfield.....	First	5 00
Best yearling, T. L. & J. L. DeLancey, Northfield.....	Second	3 00
		<hr/> \$108 00

*Sweepstakes.*

(Imported full blooded registered as above.)

Best stallion, any age, showing three or more colts, Leonard Johnson, Northfield.....	\$50 00
Best brood mare, any age, showing three or more colts, Leonard Johnson, Northfield.....	25 00
	<hr/> \$75 00



*Commended.*

Best five-year-old stallion, John Zelch, Cottage Grove.....	Commended
Best three-year-old stallion, Leonard Johnson & Son, Northfield.....	Commended
Best two-year-old, Leonard Johnson & Son, Northfield.....	Commended
Best four-year-old filly, Leonard Johnson & Son, Northfield...	Commended
Best three-year-old, Leonard Johnson & Son, Northfield.....	Commended

## CLASS NO. 8.—DRAFT STALLIONS, CLYDESDALES (Registered Stock).

(40 entries.)

	Premiums.	Amount.
Best stallion, five years old and upward, Galbraith Bros., Janesville, Wis.....	First	\$25 00
Best stallion, five years old and upward, Reid Bros., Janesville, Wis.....	Second	15 00
Best four-year-old stallion, N. P. Clark, St. Cloud.....	First	15 00
Best four-year-old stallion, Galbraith Bros., Janesville, Wis...	Second	10 00
Best three-year-old, Galbraith Bros., Janesville, Wis.....	First	15 00
Best three-year-old, Galbraith Bros., Janesville, Wis.....	Second	10 00
Best two-year-old, N. P. Clark, St. Cloud.....	First	10 00
Best two-year-old, Galbraith Bros., Janesville, Wis.....	Second	5 00
Best yearling, N. P. Clark, St. Cloud.....	First	5 00
Best yearling, N. P. Clark, St. Cloud.....	Second	3 00
		<hr/> \$113 00

*Brood Mares.*

Best brood mare, five years and over, showing one or more colts, N. P. Clark, St. Cloud.....	First	\$25 00
Best brood mare, five years and over, showing one or more colts, N. P. Clark, St. Cloud.....	Second	15 00
Best four-year-old filly, Reid Bros., Janesville, Wis.....	First	15 00
Best three-year-old, N. P. Clark, St. Cloud.....	First	15 00
Best three-year-old, N. P. Clark, St. Cloud.....	Second	5 00
Best two-year-old, N. P. Clark, St. Cloud.....	First	10 00
Best two-year-old, N. P. Clark, St. Cloud.....	Second	5 00
Best yearling, N. P. Clark, St. Cloud.....	First	5 00
		<hr/> \$95 00

## CLASS NO. 9.—SPECIAL SWEEPSTAKES FOR CLYDESDALES.

(Imported or Full Blood.)

Best mare, one and under two years, N. P. Clark, St. Cloud.....	Silver Medal
Best mare under one year, N. P. Clark, St. Cloud.....	Silver Medal
Grand Prize Medal awarded by the American Clydesdale Association.	

CLASS No. 10.—DRAFT STALLIONS, FRENCH DRAFT, NOT OTHERWISE  
CLASSIFIED (Registered Stock).

(18 entries.)

	Premiums.	Amount.
Best stallion, five years old and upward, T. L. and J. L. De Lancey, Northfield.....	First	\$25 00
Best stallion, five years old and upward, Pope and Stevens County Breeders Association, Hancock, Minn.....	Second	15 00
Best four year old stallion, Bowles, Hadden & Co., Janesville, Wis.....	First	15 00
Best three-year-old, DeLancey Bros., Northfield .....	First	15 00
Best three-year-old, DeLancey Bros., Northfield .....	Second	10 00
Best two-year-old, DeLancey Bros., Northfield.....	First	10 00
Best two-year-old, DeLancey Bros., Northfield.....	Second	5 00
		<hr/> \$95 00

*Brood Mares* (Registered Stock).

Best brood mare, five years old and over, showing one or more colts, DeLancey Bros., Northfield.....	First	25 00
Best three-year-old, DeLancey Bros., Northfield .....	First	15 00
Best three-year-old, DeLancey Bros., Northfield .....	Second	10 00
Best two-year-old, DeLancey Bros., Northfield.....	First	10 00
Best yearling, DeLancey Bros., Northfield.....	First	5 00
Best yearling, DeLancey Bros., Northfield.....	Second	3 00
		<hr/> \$68 00

*Sweepstakes.*

Best stallion, any age, and showing three or more colts, De Lancey Bros., Northfield .....		\$50 00
Best brood mare, showing three or more colts, DeLancey Bros., Northfield.....		25 00
		<hr/> \$75 00

CLASS No. 11.—DRAFT STALLIONS, ENGLISH SHIRE (Registered Stock).

(30 entries.)

Best stallion, five years old and upward, Galbraith Bros., Janesville, Wis.....	First	\$25 00
Best stallion five years old and upward, Galbraith Bros., Janesville, Wis.....	Second	15 00
Best four-year-old stallion, John Zelch, Cottage Grove.....	First	15 00
Best three-year-old, Galbraith Bros., Janesville, Wis.....	First	10 00
Best three-year-old, Galbraith Bros., Janesville, Wis.....	Second	10 00
Best two-year-old, Galbraith Bros., Janesville, Wis.....	First	10 00
Best two-year-old, Reid Bros., Janesville, Wis.....	Second	5 00
Best yearling, John Zelch, Cottage Grove.....	First	5 00
		<hr/> \$95 00

*Brood Mares.*

Best two-year-old filly, John Zelch, Cottage Grove.....	First	\$10 00
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*Sweepstakes.*

	Premiums.	Amount.
Best stallion, any age, showing three or more colts, Pope and Stevens County Breeders Association.....		\$50 00

## CLASS NO. 12.—GRAND STALLIONS SWEEPSTAKES.

(4 entries.)

Best registered draft stallion, showing five of his get, Leonard Johnson & Son, Northfield, silver cup valued at.....	\$100 00
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## CLASS NO. 13.—GRAND SWEEPSTAKES.

(47 entries.)

Clydesdale stallion, any age, N. P. Clark, St. Cloud.....	Diploma
Clydesdale stallion, any age, Galbraith Bros., Janesville, Wis.	Diploma
Clydesdale stallion, any age, English Shire, Galbraith Bros., Janesville, Wis.....	Diploma
Clydesdale stallion, any age, A. K. Barnum, St. Paul.....	Diploma
Clydesdale stallion, any age, J. H. and W. R. Bowman, Waverly, Iowa.....	Diploma
Clydesdale stallion, any age, J. H. and W. R. Bowman, Waverly, Iowa.....	Diploma
Clydesdale stallion, any age, John Zelch, Cottage Grove.....	Diploma
Clydesdale stallion, any age, Ried Bros., Janesville, Wis.....	Diploma
Percheron stallion, any age, Leonard Johnson, Northfield.....	Diploma
Percheron mare, any age, Leonard Johnson, Northfield, Minn.	Diploma
French draft stallion, any age, T. L. and J. L. De Lancey & Co., Northfield .....	Diploma

## CLASS NO. 14.—GRADE MARES, PERCHERONS.

(11 entries.)

Best brood mare, showing one or more colts, Leonard Johnson & Son, Northfield.....	First	\$15 00
Best brood mare, showing one or more colts, John Zelch, Cottage Grove.....	Second	10 00
Best three-year-old filly and over, H. F. Brown, Minneapolis.	First	10 00
Best two-year-old filly and over, Wm. Meis & Son, Hampton.	First	8 00
Best two-year-old filly and over, John Zelch, Cottage Grove...	Second	4 00
Best one-year-old filly and over, De Lancey Bros., Northfield.	First	5 00
		<hr/>
		\$52 00

## CLASS NO. 15.—GRADE MARES, CLYDESDALES.

(2 entries.)

Best brood mare, showing one or more colts, John Zelch, Cottage Grove.....	First	\$15 00
Best brood mare, showing one or more colts, John Zelch, Cottage Grove.....	Second	10 00
		<hr/>
		\$25 00

## CLASS No. 18.—BROOD MARES FOR ALL WORK.

(2 entries.)

	Premiums.	Amount.
Best brood mare, showing one or more colts, John Zelch, Cottage Grove.....	First	\$25 00
Best brood mare, showing one or more colts, John Zelch, Cottage Grove. ....	Second	15 00
		<hr/> \$40 00

## CLASS No. 19.—SADDLE HORSES.

(2 entries.)

Best saddle horse, Wm. C. Read, St. Paul.....	First	\$15 00
Second best saddle horse, J. E. Grey, Pipestone.....	Second	10 00
		<hr/> \$25 00

## CLASS No. 20.—PONIES.

(2 entries.)

Best herd five or more shetland ponies, J. H. and W. R. Bowman, Waverly, Iowa.....		\$25 00
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## DIVISION B.—CATTLE.

GEO. M. TOUSLEY, *Superintendent.*

## CLASS No. 22.—SHORT HORNS.

(82 entries.)

Best bull three years and over, N. P. Clark, St. Cloud.....	First	\$25 00
Best bull three years and over, N. P. Clark, St. Cloud.....	Second	15 00
Best bull two years old, G. P. Burnett, River Falls, Wis.....	Second	10 00
Best bull one year old, N. P. Clark, St. Cloud.....	First	15 00
Best bull one year old, N. P. Clark, St. Cloud .....	Second	8 00
Best bull calf, N. P. Clark, St. Cloud.....	First	10 00
Best bull calf, Wilcox & Liggett.....	Second	5 00
Best cow four years old and upward, N. P. Clark, St. Cloud.	First	25 00
Best cow four years old and upward, N. P. Clark, St. Cloud.	Second	15 00
Best cow three years and under four years, W. H. Jacobs, Madison, Wis.....	First	20 00
Best cow three years and under four years, W. H. Jacobs, Madison, Wis.....	Second	10 00
Best heifer two years old, W. H. Jacobs, Madison, Wis.....	First	15 00
Best heifer two years old, N. P. Clark, St. Cloud.....	Second	8 00
Best heifer one year old, W. H. Jacobs, Madison, Wis.....	First	10 00
Best heifer one year old, N. P. Clark, St. Cloud.....	Second	5 00
Best calf, Spaulding & Moffatt, Le Sueur.....	First	8 00
Best calf, W. H. Jacobs, Madison, Wis.....	Second	5 00
		<hr/> \$209 00



*Sweepstakes.*

	Premiums.	Amount.
Best herd short horns owned in Minnesota, consisting of one bull of any age, and four females, one year and upward, N. P. Clark, St. Cloud.....	First	\$50 00
Same, N. P. Clark, St. Cloud.....	Second	25 00
		<hr/> \$75 00

*Special Premiums for Browndale herds, offered by H. F. Brown, Minneapolis.*

Best herd of short horns, consisting of one bull and four females owned by one man, and from stock purchased or bred from Browndale herd of short horns, G. P. Burnett, River Falls, Wis.....	First	\$200 00
Same, C. P. Jones.....	Second	100 00
		<hr/> \$300 00

## CLASS NO. 23.—HEREFORDS.

(44 entries.)

Best bull, three years old and over, A. A. Crane, Oseo, Ill....	First	\$25 00
Best bull, three years old and over, E. S. Gillette, Rosemount	Second	15 00
Best two-year-old, W. G. Sawyer, Northfield.....	First	20 00
Best one-year-old, A. A. Crane, Oseo, Ill.....	First	15 00
Best one-year-old, A. A. Crane, Oseo, Ill.....	Second	8 00
Best calf, W. G. Sawyer, Northfield....	First	10 00
Best calf, W. H. Maes Live Stock Co., Brookings, Dak.....	Second	5 00
Best cow, four years old and upward, A. K. Barnum, St. Paul	First	25 00
Best cow, four years old and upward, W. G. Sawyer, North- field.....	Second	15 00
Best cow, three years old and under four years, W. H. Maes Live Stock, Co., Brookings, Dak.....	First	20 00
Best cow, three years old and under four years, W.G. Sawyer, Northfield.....	Second	10 00
Best heifer, two years old, A. A. Crane, Oseo, Ill.....	First	15 00
Best heifer, two years old, W.H. Maes Live Stock Co., Brook- ings, Dak.....	Second	8 00
Best heifer, one year old, W. H. Maes Live Stock Co., Brook- ings, Dak.....	First	10 00
Best heifer, one year old, A. A. Crane, Oseo, Ill.....	Second	5 00
Best heifer calf, A. A. Crane, Oseo, Ill.....	First	8 00
Best heifer calf, W. G. Sawyer, Northfield.....	Second	4 00
		<hr/> \$218 00

*Sweepstakes.*

Best herd of Herefords owned in Minnesota, consisting of one bull of any age and four females, one year old and upwards, W. G. Sawyer, Northfield.....	First	\$50 00
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## CLASS No. 24.—POLLED ANGUS.

(24 entries.)

	Premiums.	Amount.
Best bull, three years old and over, A. B. Mathews, Kansas City, Mo.....	First	\$25 00
Best bull, two years old, A. B. Mathews, Kansas City, Mo....	First	20 00
Best bull, two years old, A. B. Mathews, Kansas City, Mo....	Second	10 00
Best bull, one year old, A. B. Mathews, Kansas City, Mo.....	First	15 00
Best bull, one year old, A. B. Mathews, Kansas City, Mo.....	Second	8 00
Best calf, A. B. Mathews, Kansas City, Mo.....	First	10 00
Best calf, A. B. Mathews, Kansas City, Mo.....	Second	5 00
Best cow, four years old and upward, A. B. Mathews, Kansas City, Mo.....	First	25 00
Best cow, four years old and upward, A. B. Mathews, Kansas City, Mo.....	Second	15 00
Best heifer, two years old, A. B. Mathews, Kansas City, Mo..	First	15 00
Best heifer, two years old, A. B. Mathews, Kansas City, Mo..	Second	8 00
Best heifer, one year old, A. B. Mathews, Kansas City, Mo...	First	10 00
Best heifer, one year old, A. B. Mathews, Kansas City, Mo...	Second	5 00
Best calf, A. B. Mathews, Kansas City, Mo.....	First	8 00
Best calf, A. B. Mathews, Kansas City, Mo.....	Second	4 00
		<hr/>
		\$183 00

## CLASS No. 25.—DEVONS.

(33 entries.)

Best bull, three years old and over, J. W. Morse & Son, Verona, Wis.....	First	\$25 00
Best bull, three years old and over, Geo. Baker & Son, Hustisford, Wis.....	Second	15 00
Best bull, two years old, J. W. Morse & Son, Verona, Wis....	First	20 00
Best bull, two years old, Geo. Baker & Son, Hustisford, Wis..	Second	10 00
Best bull, one year old, J. W. Morse & Son, Verona, Wis.....	First	15 00
Best bull, one year old, Geo. Baker & Son, Hustisford, Wis...	Second	8 00
Best bull calf, J. W. Morse & Son, Verona, Wis.....	First	10 00
Best bull calf, Geo. Baker & Son, Hustisford, Wis.....	Second	5 00
Best cow, four years old and upward, J. W. Morse & Son, Verona, Wis.....	First	25 00
Best cow, four years old and upward, J. W. Morse & Son, Venora, Wis.....	Second	15 00
Best cow, three years old and under four years, J. W. Morse & Son, Verona, Wis.....	First	20 00
Best heifer, two years old, Geo. Baker & Son, Hustisford, Wis		8 00
Best heifer, one year old, J. W. Morse & Son, Verona, Wis....	First	10 00
Best heifer, one year old, Geo. Baker & Son, Hustisford, Wis..	Second	5 00
Best heifer calf, J. W. Morse & Son, Verona, Wis.....	First	8 00
Best heifer calf, Geo. Baker & Son, Hustisford, Wis.....	Second	4 00
		<hr/>
		\$203 00

## CLASS No. 26.—HOLSTEINS.

(105 entries.)

	Premiums.	Amount.
Best bull, three years old and upward, Jere Allis, Isinours, Minn.....	First	\$25 00
Best bull, three years old and upward, Friesland Live Stock Co., Aberdeen, Dak.....	Second	15 00
Best bull, two years old, Friesland Live Stock Co., Aberdeen, Dak.....	First	20 00
Best bull, two years old, A. Harrington, Rochester, Minn.....	Second	10 00
Best bull, one year old, E. F. Irvin, Richfield, Minn.....	First	15 00
Best bull, one year old, Jere Allis, Isinours, Minn.....	Second	8 00
Best bull calf, A. Harrington, Rochester, Minn.....	First	10 00
Best bull calf, M. J. Myers, Wells, Minn.....	Second	5 00
Best cow, four years old and upward, Jere Allis, Isinours, Minn.....	First	25 00
Best cow, four years old and upward, Jere Allis, Isinours, Minn.....	Second	15 00
Best cow, three years old and under four years, Jere Allis, Isinours, Minn.....	First	20 00
Best cow, three years old and under four years, A. Harrington, Rochester, Minn.....	Second	10 00
Best heifer, two years old, Jere Allis, Isinours, Minn.....	First	15 00
Best heifer, two years old, M. J. Myers, Wells, Minn.....	Second	8 00
Best heifer, one year old, N. J. Leavitt, Waseca, Minn.....	First	10 00
Best heifer, one year old, A. Harrington, Rochester, Minn.....	Second	5 00
Best heifer calf, E. F. Irvin, Richfield, Minn.....	First	8 00
Best heifer calf, A. Harrington, Rochester, Minn.....	Second	4 00
		<hr/>
		\$228 00

*Sweepstakes.*

Best herd of Holsteins owned in Minnesota, consisting of one one bull of any age, and four females one year and upward, Jere Allis, Isinours, Minn.....	First	\$50 00
Best herd of Holsteins owned in Minnesota, consisting of one bull of any age, and four females one year and upward, M. J. Myers, Wells, Minn.....	Second	25 00
		<hr/>
		\$75 00

## CLASS NO. 27.—JERSEYS.

(60 entries.)

	Premiums.	Amount.
Best bull, three years old and upward, C. McC. Reeve, Minneapolis .....	First	\$25 00
Best bull, three years old and upward, P. D. Brockway, Rochester.....	Second	15 00
Best bull, two years old, C. Le Vesconte, Hastings.....	First	20 00
Best bull, two years old, C. Le Vesconte, Hastings.....	Second	10 00
Best bull, one year old, C. McC. Reeve, Minneapolis.....	First	15 00
Best bull, one year old, C. Le Vesconte, Hastings.....	Second	8 00
Best bull calf, P. D. Brockway, Rochester, Minn.....	First	10 00
Best bull calf, C. McC. Reeve, Minneapolis.....	Second	5 00
Best cow, four years old and upward, C. Le Vesconte, Hastings .....	First	25 00
Best cow, four years old and upward, C. Le Vesconte, Hastings.....	Second	15 00
Best cow, three years old and under four years, C. Le Vesconte, Hastings.....	First	20 00
Best cow, three years old and under four years, C. McC. Reeve, Minneapolis.....	Second	10 00
Best heifer, two years old, C. Le Vesconte, Hastings, Minn....	First	15 00
Best heifer, two years old, P. D. Brockway, Rochester, Minn..	Second	8 00
Best heifer, one year old, P. D. Brockway, Rochester, Minn..	First	10 00
Best heifer, one year old, C. McC. Reeve, Minneapolis .....	Second	5 00
Best heifer calf, C. McC. Reeve, Minneapolis.....	First	8 00
Best heifer calf, C. Le Vesconte, Hastings, Minn.....	Second	4 00
		<hr/> \$228 00

*Sweepstakes.*

Best herd of Jerseys owned in Minnesota, consisting of one bull of any age and four females one year and upward, C. McC. Reeve, Minneapolis.....	First	\$50 00
Best herd of Jerseys owned in Minnesota, consisting of one bull of any age and four females one year and upward, C. Le Vesconte, Hastings, Minn.....	Second	25 00
		<hr/> \$75 00

## CLASS No. 28.—RED POLLED.

(37 entries.)

	Premiums.	Amount.
Best bull, three years old and over, Gilfillan & Murray, Maquoketa, Iowa.....	First	\$25 00
Best bull, two years old, Wm. Steel, Martin Bros. & Co., Merton, Wis.....	First	20 00
Best bull, two years old, W. F. Seymour, Eyota, Minn.....	Second	10 00
Best bull, one year old, Wm. Steel, Martin Bros. & Co., Merton, Wis.....	First	15 00
Best bull, one year old, H. W. Stone & Co., Morris, Minn.....	Second	8 00
Best bull calf, Wm. Steel, Martin & Co., Merton, Wis.....	First	10 00
Best bull calf, Wm. Steel, Martin & Co., Merton, Wis.....	Second	5 00
Best cow, four years old and upward, Wm. Steele, Martin & Co., Merton, Wis.....	First	25 00
Best cow, four years old and upward, H. W. Stone & Co., Morris, Minn.....	Second	15 00
Best cow, three years old and under four years, Gilfillan & Murray, Maquoketa, Iowa.....	First	20 00
Best cow, three years old and under four years, Gilfillan & Murray, Maquoketa, Iowa.....	Second	10 00
Best heifer, two years old, Gilfillan & Murray, Maquoketa, Iowa.....	First	15 00
Best heifer, two years old, Wm. Steel, Martin & Co., Merton, Wis.....	Second	8 00
Best heifer calf, H. W. Stone & Co., Morris, Minn.....	First	8 00
Best heifer calf, Gilfillan & Murray, Maquoketa, Iowa.....	Second	4 00
		<hr/>
		\$188 00

*Sweepstakes.*

Best herd of red polled, owned in Minnesota, consisting of one bull of any age and four females one year and upward, H. W. Stone & Co., Morris, Minn.....	First	\$50 00
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## CLASS No. 29.—GUERNSEYS.

(10 entries.)

Best bull, three years old and over, Alfred A. Day, Farmington, Minn.....	First	\$25 00
Best bull, three years old and over, G. E. Gordon, Koshkonong, Wis.....	Second	15 00
Best bull, one year old, G. E. Gordon, Koshkonong, Wis.....	First	15 00
Best bull calf, G. E. Gordon, Koshkonong, Wis.....	First	10 00
Best cow, four years old and upward, G. E. Gordon, Koshkonong, Wis.....	First	25 00
Best cow, four years old and upward, G. E. Gordon, Koshkonong, Wis.....	Second	15 00
Best cow, three years old and under four years, G. E. Gordon, Koshkonong, Wis.....	First	20 00
Best heifer calf, G. E. Gordon, Koshkonong, Wis.....	First	8 00
		<hr/>
		\$133 00



## CLASS No. 30.—BROWN SWISS.

(10 entries.)

	Premiums.	Amount.
Best bull, three years old and upward, F. A. Squires & Son, Blue Earth City.....	First	\$25 00
Best bull, two years old, F. A. Squires & Son, Blue Earth City.....	First	20 00
Best bull, one year old, F. A. Squires & Son, Blue Earth City	First	15 00
Best cow, four years old and upward, F. A. Squires & Son, Blue Earth City.....	First	25 00
Best cow, four years old and upward, F. A. Squires & Son, Blue Earth City.....	Second	15 00
Best cow, three years old and under four years, F. A. Squires, Blue Earth City.....	First	20 00
Best heifer, one year old, F. A. Squires, Blue Earth City.....	First	10 00
Best heifer, one year old, F. A. Squires, Blue Earth City.....	Second	5 00
Best heifer calf, F. A. Squires, Blue Earth City.....	First	8 00
Best heifer calf, F. A. Squires, Blue Earth City.....	Second	4 00
		<hr/> \$147 00

*Sweepstakes.*

Best herd of Brown Swiss, owned in Minnesota, consisting of one bull of any age and four females one year and upward, F. A. Squires & Son, Blue Earth City.....	First	\$50 00
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## CLASS No. 31.—GALLOWAYS.

(20 entries.)

Best bull, three years old and upward, Hugh Paul, Heron Lake.....	First	\$25 00
Best bull, three years old and upward, Hugh Paul, Heron Lake.....	Second	15 00
Best bull, two years old, Hugh Paul, Heron Lake.....	First	20 00
Best bull, two years old, Hugh Paul, Heron Lake.....	Second	10 00
Best bull calf, Hugh Paul, Heron Lake.....	First	10 00
Best bull calf, Hugh Paul, Heron Lake.....	Second	5 00
Best cow, four years old and upward, Hugh Paul, Heron Lake.....	First	25 00
Best cow, four years old and upward, Hugh Paul, Heron Lake.....	Second	15 00
Best heifer, two years old, Hugh Paul, Heron Lake.....	First	15 00
Best heifer, one year old, Hugh Paul, Heron Lake.....	First	10 00
Best heifer, one year old, Hugh Paul, Heron Lake.....	Second	5 00
Best heifer calf, Hugh Paul, Heron Lake.....	First	8 00
		<hr/> \$163 00

*Ayrshire.*

(1 entry.)

Best bull, three years old and upward, F. M. Watson, Rose- ville, Ill.....	\$25 00
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## GRADE CATTLE.

## CLASS No. 32.—GRADE SHORTHORNS.

(16 entries.)

	Premiums.	Amount.
Best heifer calf, Luke Stannard, Taylors Falls, Minn.....	First	\$5 00
Best heifer calf, Luke Stannard, Taylors Falls, Minn.....	Second	2 50
Best fat steer, three years old, Jacob Grassle, Rochester, Minn.	First	15 00
Best fat steer, three years old, Jacob Grassle, Rochester, Minn.	Second	8 00
Best fat steer, two years old, Jacob Grassle, Rochester, Minn.	First	15 00
Best fat steer, two years old, Jacob Grassle, Rochester, Minn.	Second	8 00
Best steer, one year old, Jacob Grassle, Rochester, Minn.....	First	15 00
Best steer, one year old, Jacob Grassle, Rochester, Minn.....	Second	8 00
		<hr/>
		\$76 50

## CLASS No. 33.—GRADE HEREFORDS.

(2 entries.)

Best fat steer, two years old, John Cromm, Le Sueur.....	First	\$15 00
Best fat steer, one year old, John Cromm, Le Sueur.....	First	15 00
		<hr/>
		\$30 00

## CLASS No. 34.—GRADE POLLED CATTLE.

(8 entries.)

Best cow, four years and upward, W. F. Seymour, Eyota, Minn.....	First	\$15 00
Best cow, four years and upward, W. F. Seymour, Eyota, Minn.....	Second	8 00
Best cow, three years and less than four, H. W. Stone & Co., Morris, Minn.....	First	12 00
Best heifer, two years old, H. W. Stone & Co., Morris, Minn.	First	10 00
Best heifer, one year old, H. W. Stone & Co., Morris, Minn...	First	8 00
Best heifer, one year old, W. F. Seymour, Eyota, Minn.....	Second	4 00
Best heifer calf, H. W. Stone & Co., Morris, Minn.....	First	5 00
		<hr/>
		\$62 00

## CLASS No. 35.—GRADE DEVONS.

(2 entries.)

Best heifer calf, Luke Stannard, Taylors Falls, Minn.....	First	\$5 00
Best heifer calf, Luke Stannard, Taylors Falls, Minn.....	Second	2 50
		<hr/>
		\$7 50

## CLASS No. 36.—GRADE HOLSTEINS.

(17 entries.)

	Premiums.	Amount.
Best cow, four years and upward, S. Leslie, Waseca, Minn....	First	\$15 00
Best cow, four years and upward, E. F. Irvin, Richfield.....	Second	8 00
Best cow, three years and less than four, E. F. Irvin, Richfield	First	12 00
Best cow, three years and less than four, S. Leslie, Waseca.....	Second	6 00
Best heifer, two years old, N. J. Leavitt, Waseca.....	First	10 00
Best heifer, two years old, S. Leslie, Waseca.....	Second	5 00
Best heifer, one year old, S. Leslie, Waseca.....	First	8 00
Best heifer, one year old, S. Leslie, Waseca.....	Second	4 00
Best heifer calf, E. F. Irvin, Richfield.....	First	5 00
Best heifer calf, S. Leslie, Waseca.....	Second	2 50
		<hr/>
		\$75 50

## CLASS No. 37.—GRADE JERSEYS.

(2 entries.)

Best cow, four years old and upward, P. D. Brockway, Rochester.....	First	\$15 00
Best heifer calf, P. D. Brockway, Rochester.....	First	5 00
		<hr/>
		\$20 00

## CLASS No. 38.—GRADE GUERNSEYS.

(3 entries.)

Best heifer, one year old, Alfred A. Day, Farmington.....	First	\$8 00
Best heifer, one year old, Alfred A. Day, Farmington.....	Second	4 00
		<hr/>
		\$12 00

## CLASS No. 39.—REGISTERED MILKING BREEDS.

(20 entries.)

Cow producing milk from which most butter is made—		
Freisland Live Stock Co., Aberdeen, Dak.....	First	\$25 00
C. Le Visconte, Hastings, Minn.....	Second	15 00
I. C. Wade, Jamestown, Dak.....	Third	10 00
Jere Allis, Isinours, Minn.....	Commended	
		<hr/>
		\$50 00

## CLASS No. 40.—GRADE OR NATIVE MILKING BREEDS.

(4 entries.)

Cow producing milk from which most butter is made—		
S. Leslie, Waseca, Minn.....	First	\$25 00
S. Leslie, Waseca, Minn.....	Second	15 00
S. Leslie, Waseca, Minn.....	Third	10 00
		<hr/>
		\$50 00

## CLASS NO. 41.—SWEEPSTAKES HERD PREMIUMS (Any Breed.)

(98 entries.)

(Herd consisting of one bull, any age, and four females, one year old and upward.)

Best herd of cattle (beef breeds) belonging to one individual  
or firm, of any breed —

	Premiums.	Amount.
N. P. Clark, St. Cloud.....	First	\$300 00
W. H. Jacobs, Madison, Wis.....	Second	150 00
N. P. Clark, St. Cloud.....	Third	50 00

Best herd of cattle (milk breeds) belonging to one individual  
or firm, of any breed —

Jere Allis, Isinours, Minn.....	First	300 00
M. J. Myers, Wells, Minn.....	Second	150 00
Chas. Le Visconte, Hastings, Minn.....	Third	50 00
G. E. Gordon, Koshkonong, Wis.....	Commended	

Best herd of cattle (beef breeds) owned in the state —

N. P. Clark, St. Cloud, Minn.....	First	150 00
N. P. Clark, St. Cloud, Minn.....	Second	100 00
Spaulding & Moffat, Le Sueur, Minn.....	Third	50 00

Best herd of cattle (milk breeds) owned in the state —

Jere Allis, Isinours, Minn.....	First	150 00
M. J. Myers, Wells, Minn.....	Second	100 00
Chas. Le Visconte, Hastings, Minn.....	Third	50 00

Best four grade, females, any age (beef breeds) —

Luke Stannard, Taylor Falls, Minn.....		50 00
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Best four grade, females, any age (milk breeds) —

S. Leslie, Waseca, Minn.....	First	50 00
E. F. Irvin, Richfield, Minn,.....	Second	25 00

Best herd of Red Polled cattle, consisting of one bull, of any  
age, and four females one year and upward —

Gilfillan & Murray, Maquoketa, Iowa.....	First	50 00
H. W. Stone & Co., Morris, Minn.....	Second	25 00

Best young herd (beef breed) bull and four females under  
two years —

N. P. Clark, St. Cloud, Minn.....	First	50 00
N. P. Clark, St. Cloud, Minn.....	Second	25 00

Best young herd (milk breeds) bull and four females, under  
two years —

N. J. Levitt, Waseca, Minn.....	First	50 00
C. Le Visconte, Hastings, Minn.....	Second	25 00
C. McC. Reeve, Minneapolis.....	Commended	

Best get of a bull (beef breeds) four or more, any age or sex —

N. P. Clark, St. Cloud, Minn.....	First	50 00
A. B. Mathews, Kansas City, Mo.....	Second	25 00

Best get of a bull (milk breeds) four or more, any age or  
sex —

Geo. Baker & Son, Hustisford, Wis.....	First	50 00
E. F. Irvin, Richfield, Minn.....	Second	25 00

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 \$2,100 00

## CLASS No. 42.—GRAND SWEEPSTAKES.

(68 entries.)

Best male of any age, Holsteins, Jere Allis, Isinours, Minn...	Diploma
Best male of any age, Shorthorns, W. H. Jacobs, Madison, Wis	Diploma
Best male of any age, Jerseys, C. La Visconte, Hastings.....	Diploma
Best male of any age, Polled Angus, A. B. Mathews, Kansas City, Mo.....	Diploma
Best male of any age, Red Polled, Gilfillan & Murray, Maquoketa, Iowa.....	Diploma
Best male of any age, Guernseys, G. E. Gorden, Koshkonong, Wis.....	Diploma
Best male of any age, Devons, J. W. Morse & Son, Vernon, Wis.....	Diploma
Best male of any age, Herefords, W. G. Sawyer, Northfield...	Diploma
Best female of any age, Shorthorns, W. H. Jacobs, Madison, Wis.....	Diploma
Best female, any age, Polled Angus, A. B. Mathews, Kansas City, Mo.....	Diploma
Best female of any age, Red Polled, H. W. Stone & Co., Morris, Minn.....	Diploma
Best female of any age, Devons, J. W. Morse & Son, Verona, Wis.....	Diploma
Best female of any age, Herefords, A. A. Crane, Oseo, Ill.....	Diploma
Best female of any age, Holsteins, Jere Allis, Isinours, Minn.	Diploma
Best female of any age, Jerseys, P. D. Brockway, Rochester.	Diploma
Best female of any age, Guernseys, G. E. Gordon, Koskonong, Wis.....	Diploma

## DIVISION C—SHEEP.

L. H. PROSSER, *Superintendent.*

## CLASS No. 43.—MERINOS.

(33 entries.)

	Premiums.	Amount.
Best ram, two years old and over, J. H. McKibbin & Bro., Albion, Ia.....	First	\$15 00
Best ram, two years old and over, T. N. Porter, Rochester....	Second	8 00
Best ram, one year old, J. H. McKibbin & Bro., Albion, Ia...	First	12 00
Best ram, one year old, J. H. McKibbin & Bro., Albion, Ia...	Second	6 00
Best lamb, J. H. McKibbin & Bro., Albion, Ia.....	First	8 00
Best lamb, T. N. Porter, Rochester, Minn.....	Second	4 00
Best pen, five ewes, not less than one year old, J. H. McKibbin & Bro., Albion, Ia .....	First	\$20 00
Best pen, five ewes, not less than one year old, T. N. Porter, Rochester, Minn .....	Second	12 00
Best ewe, two years old and over, J. H. McKibbin & Bro., Albion, Ia.....	First	8 00
Best ewe, two years old and over, Geo. Baker & Son, Hustisford, Wis.....	Second	4 00
Best ewe, one year old, J. H. McKibbin & Bro., Albion, Ia..	First	6 00
Best ewe, one year old, J. H. McKibbin & Bro., Albion, Ia..	Second	3 00
Best lamb, J. H. McKibbin & Bro., Albion, Ia.....	First	4 00
Best lamb, T. N. Porter, Rochester, Minn.....	Second	2 00
		<hr/> \$112 00

## CLASS No. 44.—LONG WOOLS.

(51 entries.)

Best ram, two years old or over, Geo. Harding, Waukesha, Wis.....	First	\$15 00
Best ram, two years old or over, J. C. Easton, Chatfield.....	Second	8 00
Best ram one year old, Geo. Harding, Waukesha, Wis.....	First	12 00
Best ram, one year old, Geo. F. Davis & Co., Dyer, Ind.....	Second	6 00
Best ram lamb, Geo. Harding, Waukesha, Wis.....	First	8 00
Best ram lamb, Geo. Harding, Waukesha, Wis.....	Second	4 00
Best pen five ewes, not less than one year old, Geo. Harding, Waukesha, Wis .....	First	20 00
Best pen five ewes, not less than one year old, Geo. F. Davis & Co., Dyer, Ind.....	Second	12 00
Best ewe, two years old or over, Geo. F. Davis & Co., Dyer, Ind .....	First	8 00
Best ewe, two years old or over, Geo. Harding, Waukesha, Wis	Second	4 00
Best ewe, one year old, Geo. F. Davis & Co., Dyer, Ind .....	First	6 00
Best ewe, one year old, Geo. Harding, Waukesha, Wis.....	Second	3 00
Best ewe lamb, Geo. F. Davis & Co., Dyer, Ind.....	First	4 00
Best lamb, Geo. Harding, Waukesha, Wis.....	Second	2 00
		<hr/> \$112 00



## CLASS No. 45.—OXFORD DOWNS.

(39 entries.)

	Premiums.	Amount.
Best ram, two years old and over, J. C. Easton, Chatfield, Minn.....	First	\$15 00
Best ram, two years old and over, Wilcox & Liggett, Benson, Minn.....	Second	8 00
Best ram, one year old, J. C. Easton, Chatfield, Minn.....	First	12 00
Best ram lamb, Wilcox & Liggett, Benson, Minn.....	First	8 00
Best ram lamb, Wilcox & Liggett, Benson, Minn.....	Second	4 00
Best pen five ewes, not less than one year old, J. C. Easton, Chatfield, Minn.....	First	20 00
Best pen five ewes, not less than one year old, Wilcox & Liggett, Benson, Minn.....	Second	12 00
Best ewe, two years old or over, J. C. Easton, Chatfield, Minn.....	First	8 00
Best ewe, two years old or over, Wilcox & Liggett, Benson, Minn.....	Second	4 00
Best ewe, one year old, Wilcox & Liggett, Benson, Minn.....	First	6 00
Best ewe, one year old, J. C. Easton, Chatfield, Minn.....	Second	3 00
Best ewe lamb, Wilcox & Liggett, Benson, Minn.....	First	4 00
Best ewe lamb, Wilcox & Liggett, Benson, Minn.....	Second	2 00
		<hr/> \$106 00

## CLASS No. 46.—SHROPSHIRE DOWNS.

(70 entries.)

Best ram, two years old or over, Mathewson Bros., Bradley, Dak.....	First	\$15 00
Best ram, two years old or over, Mathewson Bros., Bradley, Dak.....	Second	\$8 00
Best ram, one year old, Mathewson Bros., Bradley, Dak.....	First	12 00
Best ram, one year old, Mathewson Bros., Bradley, Dak.....	Second	6 00
Best ram lamb, Mathewson Bros., Bradley, Dak.....	First	8 00
Best ram lamb, Geo. F. Davis & Co., Dyer, Ind.....	Second	4 00
Best pen five ewes, not less than one year old, W. C. Nichols & Son, Cresco, Ia.....	First	20 00
Best pen five ewes, not less than one year old, Mathewson Bros., Bradley, Dak.....	Second	12 00
Best ewe, two years old or over, Mathewson Bros., Bradley, Dak.....	First	8 00
Best ewe, two years old or over, Geo. F. Davis & Co., Dyer, Ind.....	Second	4 00
Best ewe, one year old, W. C. Nichols & Son, Cresco, Ia.....	First	6 00
Best ewe, one year old, Mathewson Bros., Bradley, Dak.....	Second	3 00
Best ewe lamb, Mathewson Bros., Bradley, Dak.....	First	4 00
Best ewe lamb, Mathewson Bros., Bradley, Dak.....	Second	2 00
		<hr/> \$112 00

## CLASS No. 48.—GRADES.

(9 entries.)

	Premiums.	Amount.
Best ewe, two years old or over, Mathewson Bros., Bradley, Dak.....		\$4 00
Best ewe lamb, W. C. Nichols & Son., Cresco, Ia.....		3 00
		<hr/> \$7 00

## CLASS No. 49.—SWEEPSTAKES.

(54 entries.)

Best Merino buck, any age, J. H. McKibbin & Bro., Albion, Ia.	\$20 00
Best Merino ewe, any age, J. H. McKibbin & Co., Albion, Ia.	20 00
Best long wool buck, any age, Geo. Harding, Waukesha, Wis.	20 00
Best long wool ewe, any age, Geo. F. Davis & Co., Dyer, Ind.	20 00
Best down buck, any down breed or age, Mathewson Bros., Bradley, Dak.....	20 00
Best down ewe, any down breed or age, Mathewson Bros., Bradley, Dak.....	20 00
	<hr/> \$120 00

## DIVISION C—SWINE.

L. H. PROSSER, *Superintendent.*

## CLASS No. 50.—BERKSHIRES.

(35 entries.)

Best boar, one year old and over, M. K. Prine & Son, Oskaloosa, Ia.....	First	\$15 00
Best boar, one year old and over, T. N. Porter, Rochester, Minn.	Second	10 00
Best boar, six months and under one year, M. K. Prine & Son, Oskaloosa, Ia.....	First	10 00
Best boar, 6 months and under one year, T. N. Porter, Rochester, Minn.....	Second	7 00
Best breeding sow, one year old or over, M. K. Prine & Son, Oskaloosa, Ia.....	First	15 00
Best breeding sow, one year old or over, M. K. Prine & Son, Oskaloosa, Ia.....	Second	10 00
Best sow pig, six months and under one year, M. K. Prine & Son, Oskaloosa, Ia.....	First	10 00
Best sow pig, six months and under one year, M. K. Prine & Son, Oskaloosa, Ia.....	Second	7 00
Best pen of pigs, not less than four in number, not over six months old, M. K. Prine & Son, Oskaloosa, Ia.....	First	12 00
Best pen of pigs, not less than four in number, not over six months old, T. N. Porter, Rochester, Minn.....	Second	8 00
		<hr/> \$104 00

## CLASS No. 51.—SUFFOLKS.

(3 entries.)

	Premiums.	Amount.
Best boar, one year old and over, James D. Cass, Beloit, Wis..	First	\$15 00
Best breeding sow, one year or over, James D. Cass, Beloit, Wis.	First	15 00
Best pen of pigs, not less than four in number, not over six years old, James D. Cass, Beloit, Wis.....	First	12 00
		<hr/> \$42 00

## CLASS No. 52.—POLAND CHINA.

(16 entries.)

Best boar, one year old and over, G. W. Plank, Eyota, Minn...	First	\$15 00
Best boar, one year old and over, G. W. Plank, Eyota, Minn...	Second	10 00
Best boar, 6 months and under one year, C. D. Smith, St. Charles, Minn.....	First	10 00
Best boar, 6 months and under one year, C. D. Smith, St. Charles, Minn.....	Second	7 00
Best breeding sow, one year old or over, G. W. Plank, Eyota, Minn.....	First	15 00
Best breeding sow, one year old or over, G. W. Plank, Eyota, Minn.....	Second	10 00
Best pig, six months and under one year, C. D. Smith, St. Charles, Minn.....	First	10 00
Best pig, six months and under one year, C. D. Smith, St. Charles, Minn.....	Second	7 00
Best pen of pigs, not less than four in number, not over six months old, G. W. Plank, Eyota, Minn.....	First	12 00
Best pen of pigs, not less than four in number, not over six months old, G. W. Plank, Eyota, Minn.....	Second	8 00
		<hr/> \$104 00

## CLASS No. 56.—VICTORIA.

(15 entries.)

Best boar, one year old and over, J. P. Brabazon, Delavan, Wis.	First	\$15 00
Best boar, one year old and over, Geo. F. Davis & Co., Dyer, Ind.	Second	10 00
Best boar, six months and under one year, Geo. F. Davis & Co., Dyer, Ind.....	First	10 00
Best boar, six months and under one year, J. P. Brabazon, Delavan, Wis.....	Second	7 00
Best breeding sow, one year old or over, Henry Davis, Dyer, Ind.	First	15 00
Best breeding sow, one year old or over, Geo. F. Davis & Co., Dyer, Ind.....	Second	10 00
Best sow pig, six months and under one year, Geo. F. Davis & Co., Dyer, Ind.....	First	10 00
Best sow pig, six months and under one year, Henry Davis, Dyer, Ind.....	Second	7 00
Best pen of pigs, not less than four in number, not over six months old, Geo. F. Davis & Co., Dyer, Ind.....	First	12 00
Best pen of pigs, not less than four in number, not over six months old, Henry Davis, Dyer, Ind.....	Second	8 00
		<hr/> \$104 00

## CLASS No. 58.—SWEEPSTAKES.

(37 entries.)

Best pen five fat hogs, owned and raised by exhibitor —

	Premiums.	Amount.
M. K. Prine & Son, Oskaloosa, Iowa.....	First	\$25 00
T. N. Porter, Rochester, Minn.....	Second	15 00
Best boar of any age or breed, G. W. Plank, Eyota, Minn.....		20 00
Best sow of any age or breed, G. W. Pank, Eyota, Minn.....		20 00
		<hr/> \$80 00

## DIVISION C.—POULTRY.

W. A. GATES, *Superintendent.*

## CLASS No. 59.—DOMESTIC FOWLS.

(215 Entries.)

*Asiatics.*

Pair Light Brahmas, G. P. Ritt, St. Paul.....	First	\$3 00
Pair Light Brahmas, Frank Harding, Waukesha, Wis.....	Second	1 00
Pair Light Brahmas, chicks, G. P. Ritt.....	First	3 00
Pair Light Brahmas, chicks, G. P. Ritt.....	Second	1 00
Pair Light Brahmas, Henry Davis, Dyer, Ind.....	Commended	
Pair Light Brahmas, chicks, G. P. Ritt.....	Commended	
Pair Dark Brahmas, J. R. Brabazon, Delavan, Wis.....	First	3 00
Pair Dark Brahmas, C. H. Belding, Shopiere, Wis.....	Second	1 00
Pair Dark Brahmas, C. H. Belding, Shopiere, Wis.....	Commended	
Pair White Cochins, J. S. Macomber, St. Charles.....	First	3 00
Pair White Cochins, J. R. Brabazon.....	Second	1 00
Pair White Cochins, chicks, C. H. Belding.....	First	3 00
Pair White Cochins, chicks, J. S. Macomber.....	Second	1 00
Pair White Cochins, C. H. Belding.....	Commended	
Pair White Cochins, chicks, C. H. Belding.....	Commended	
Pair Black Cochins, J. R. Brabazon.....	First	3 00
Pair Buff Cochins, J. P. Ritt.....	First	3 00
Pair Buff Cochins, C. D. Smith, St. Charles.....	Second	1 00
Pair Buff Cochins, chicks, Henry F. Hulster.....	First	3 00
Pair Buff Cochins, chicks, C. D. Smith.....	Second	1 00
Pair Buff Cochins, C. H. Belding.....	Commended	
Pair Buff Cochins, chicks, C. H. Belding.....	Commended	
Pair Partridge Cochins, C. D. Smith.....	First	3 00
Pair Partridge Cochins, Frank Harding, Waukesha, Wis.....	Second	1 00
Pair Partridge Cochins, chicks, C. H. Belding.....	First	1 00
Pair Partridge Cochins, chicks, J. R. Brabazon.....	Second	1 00



	Premiums.	Amount.
Pair Partridge Cochins, Henry Davis, Dyer, Ind.....	Commended	
Pair Langshans, C. D. Smith.....	First	3 00
Pair Langshans, J. S. Macomber.....	Second	1 00
Pair Langshans, chicks, J. R. Brabazon.....	First	3 00
Pair Langshans, chicks, Frank Harding.....	Second	1 00
Pair Langshans, chicks, C. H. Belding.....	Commended	

*American.*

Pair Plymouth Rocks, N. S. Beardsley, St. Paul.....	First	3 00
Pair Plymouth Rocks, J. S. Macomber, St. Charles.....	Second	1 00
Pair Plymouth Rocks, chicks, N. S. Beardsley.....	Second	1 00
Pair Plymouth Rocks, N. S. Beardsley.....	Commended	
Pair Plymouth Rocks, chicks, N. S. Beardsley.....	Commended	
Pair Dominiques, C. H. Belding, Shopiere, Wis.....	First	3 00
Pair Dominiques, J. R. Brabazon, Delavan, Wis.....	Second	1 00
Pair Dominiques, chicks, C. H. Belding.....	First	3 00
Pair Dominiques, chicks, J. R. Brabazon.....	Second	1 00
Pair Dominiques, C. H. Belding.....	Commended	
Pair Dominiques, chicks, C. H. Belding.....	Commended	
Pair Wyandottes, C. D. Smith.....	First	3 00
Pair Wyandottes, J. S. Macomber.....	Second	1 00
Pair Wyandottes, chicks, J. R. Brabazon.....	First	3 00
Pair Wyandottes, chicks, Frank Harding, Wabasha, Wis.....	Second	1 00
Pair Wyandottes, C. D. Smith.....	Commended	
Pair Black Javas, chicks, C. D. Smith.....	First	3 00
Pair Black Javas, chicks, C. D. Smith.....	Second	1 00
Pair Houdans, J. S. Macomber.....	First	3 00
Pair Houdans, J. R. Brabazon.....	Second	1 00
Pair Houdans, chicks, C. H. Belding.....	First	3 00
Pair White Plymouth Rocks, C. H. Belding.....	First	3 00
Pair White Plymouth Rocks, N. S. Beardsley.....	Second	1 00
Pair White Wyandottes, Frank Harding.....	First	3 00
Pair White Wyandottes, chicks, J. S. Macomber.....	First	3 00
Pair White Wyandottes, chicks, C. D. Smith.....	Second	1 00
Pair White Wyandottes, chicks, C. D. Smith.....	Commended	
Pair White Wyandottes, Frank Harding.....	First	3 00
Pair Golden Wyandottes, chicks, Frank Harding.....	First	3 00
Pair Golden Wyandottes, chicks, J. S. Macomber.....	Second	1 00
Pair Golden Wyandottes, chicks, Frank Harding.....	Commended	
Pair Jersey Blues, chicks, J. R. Brabazon.....	First	3 00
Pair Black Spanish, James Murray, St. Cloud.....	First	3 00
Pair Black Spanish, C. D. Smith, St. Charles.....	Second	1 00
Pair Black Spanish, J. R. Brabazon, Delavan, Wis.....	Commended	
Pair White Leghorn, J. S. Macomber, St. Charles.....	First	3 00
Pair White Leghorns, J. R. Brabazon, Delavan, Wis.....	Second	1 00
Pair White Leghorns, R. W. Robinson, St. Paul.....	Commended	
Pair White Leghorns, chicks, J. R. Brabazon, Delavan, Wis..	First	3 00
Pair White Leghorns, chicks, R. W. Robinson, St. Paul.....	Second	1 00
Pair White Leghorns, chicks, R. W. Robinson, St. Paul.....	Commended	



	Premiums.	Amount.
Pair Brown Leghorns, Peter Becker, White Bear Lake.....	First	3 00
Pair Brown Leghorns, chicks, Frank Harding, Waukesha, Wis	First	3 00
Pair Brown Leghorns, chicks, Frank Harding, Waukesha, Wis	Second	1 00
Pair R. C. Brown Leghorns, C. D. Smith, St. Charles.....	First	3 00
Pair R. C. Brown Leghorns, J. S. Macomber, St. Charles.....	Second	1 00
Pair R. C. Brown Leghorns, C. D. Smith, St. Charles.....	Commended	
Pair White R. C. Leghorns, C. D. Smith, St. Charles.....	First	3 00
Pair White R. C. Leghorns, J. S. Macomber, St. Charles.....	Second	1 00
Pair White R. C. Leghorns, C. D. Smith, St. Charles.....	Commended	
Pair Black Single C. Leghorns, chicks, Frank Harding, Waukesha, Wis.....	First	3 00
Pair Black Single C. Leghorns, chicks, C. D. Smith, St. Charles	Second	1 00
Pair Single C. Leghorns, chicks, C. H. Belding, Shopiere, Wis	Commended	
Pair Black Minorcas, C. H. Belding, Shopiere, Wis.....	First	3 00
Pair White Minorcas, chicks, C. H. Belding, Shopiere, Wis...	First	3 00
Pair White C. W. Polish, C. H. Belden, Shopiere, Wis.....	First	3 00
Pair White C. W. Polish, J. R. Brabazon, Delavan, Wis.....	Second	1 00
Pair White C. W. Polish, chicks, C. H. Belding, Shopiere, Wis.	First	3 00
Pair White C. W. Polish, chicks, C. H. Belding, Shopiere, Wis.	Second	1 00
Pair White C. B. Polish, J. R. Brabazon, Delavan, Wis.....	First	3 00
Pair White C. B. Polish, J. S. Macomber, St. Charles .....	Second	1 00
Pair White C. B. Polish, chicks, J. R. Brabazon, Delavan, Wis	First	3 00
Pair White C. B. Polish, chicks, C. H. Belding, Shopiere, Wis	Second	1 00
Pair Golden Polish, C. H. Belding, Shopiere, Wis.....	First	3 00
Pair Silver Polish, J. R. Brabazon, Delavan, Wis.....	First	3 00
Pair Silver Polish, chicks, J. R. Brabazon, Delavan, Wis.....	First	3 00
Pair Gold Spangled Hamburg, C. H. Belding, Shopiere, Wis..	First	3 00
Pair Silver Spangled Hamburg, Jas. Murray, St. Cloud.....	First	3 00
Pair Silver Spangled Hamburg, J. R. Brabazon, Delavan, Wis	Second	1 00
Pair Silver Spangled Hamburg, C. H. Belding, Shopiere, Wis	Commended	
Pair Silver Spangled Hamburg, chicks, Jas. Murray, St. Cloud	First	3 00
Pair Silver Spangled Hamburg, chicks, Shopiere, Wis.....	Second	1 00
Pair Silver Spangled Hamburg, chicks, C. H. Belding, Shopiere, Wis.....	Commended	
Pair Black Leghorns, N. S. Beardsley, St. Paul.....	First	3 00
Pair Black Leghorns, J. S. Macomber, St. Charles.....	Second	1 00
Pair Black Leghorns, R. W. Robinson, St. Paul.....	Commended	

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\$177 00

## CLASS No. 60.—GAME.

(74 entries.)

Pair Black Breasted Red Game, E. J. Gates, Rochester.....	First	\$3 00
Pair Black Breasted Red Game, J. S. Macomber, St. Charles..	Second	1 00
Pair Black Breasted Red Game, R. W. Robinson, St. Paul....	Commended	
Pair Black Breasted Red Game, chicks, E. J. Gates, Rochester	First	3 00
Pair Black Breasted Red Game, chicks, C. H. Belding, Shopiere, Wis.....	Second	1 00
Pair Black Breasted Red Game, chicks, James Murray, St. Cloud .....	Commended	

	Premiums.	Amount.
Pair Brown Breasted Red Game, E. J. Gates, Rochester.....	First	3 00
Pair Brown Breasted Red Game, chicks, E. J. Gates, Rochester	First	3 00
Pair Brown Breasted Red Game, chicks, J. R. Brabazon, Dela- van, Wis.....	Second	1 00
Pair Yellow Duckwing Game, E. J. Gates, Rochester.....	First	3 00
Pair Yellow Duckwing Game, chicks, E. J. Gates, Rochester..	First	3 00
Pair Earl of Derby Game, E. J. Gates, Rochester.....	First	3 00
Pair Earl of Derby Game, chicks, E. J. Gates, Rochester. ....	First	3 00
Pair White Bantams, Wm. W. Robinson, Clear Water, Minn..	First	3 00
Pair White Bantams, C. H. Belding, Shopiere, Wis.....	Second	1 00
Pair Golden Seabright, J. R. Brabazon, Delavan, Wis.....	First	3 00
Pair Golden Seabright, C. H. Belding, Shopiere, Wis.....	Second	1 00
Pair Golden Seabright, chicks, C. H. Belding, Shopiere, Wis..	First	3 00
Pair Silver Seabright, chicks, C. H. Belding, Shopiere, Wis...	First	3 00
Pair B. B. Bantams, R. W. Robinson, St. Paul.....	First	3 00
Pair B. B. Bantams, C. H. Belding, Shopiere, Wis.....	Second	1 00
Pair B. B. Bantams, chicks, R. W. Robinson, St. Paul.....	First	3 00
Pair B. B. Bantams, E. J. Gates, Rochester.....	Commended	
Pair Black African Bantams, J. R. Brabazon, Delavan, Wis...	First	3 00
Pair Black African Bantams, C. H. Belding Shopiere, Wis....	Second	1 00
Pair Black African Bantams, chicks, J. R. Brabazon, Delavan, Wis.....	First	3 00
Pair Duckwing Bantams, E. J. Gates, Rochester.....	First	3 00
Pair Duckwing Bantams, J. R. Brabazon, Delavan, Wis.....	Second	1 00
Pair Sumatra Game, J. S. Macomber, St. Charles.....	First	3 00
Pair Sumatra Game, chicks, J. S. Macomber, St. Charles.....	First	3 00
Pair S. Duckwing, E. J. Gates, Rochester.....	First	3 00
Pair S. Duckwing, chicks, E. J. Gates, Rochester.....	First	3 00
		<hr/>
		\$71 00

## CLASS NO. 61.—TURKEYS, DUCKS, GEESE, AND GUINEAS.

(62 entries.)

*Turkeys.*

Best pair Bronze turkeys, C. H. Belden, Shopiere, Wis.. ....	First	\$3 00
Best pair Bronze turkeys, J. R. Brabazon, Delavan, Wis.....	Second	1 00
Pair Bronze turkeys, G. W. Plank, Eyota.....	Commended	
Pair Bronze chicks, C. D. Smith, St. Charles.....	First	3 00
Pair Bronze chicks, C. D. Smith, St. Charles.....	Second	1 00
Pair White Holland turkeys, Frank Harding, Waukesha, Wis.	First	3 00
Pair White Holland turkeys, C. H. Belding, Shopiere, Wis.....	Second	1 00
Pair White Holland turkeys, J. R. Brabazon, Delavan, Wis...	Commended	
Pair White Holland chicks, Frank Harding, Waukesha, Wis..	First	3 00
Pair White Holland chicks, C. H. Belding, Shopiere, Wis....	Second	1 00
Pair Black turkeys, J. R. Brabazon, Delavan, Wis.....	First	3 00
Pair wild chicks, J. R. Brabazon, Delavan, Wis.....	First	3 00
		<hr/>
		\$22 00

*Ducks.*

	Premiums.	Amount.
Pair Aylesbury, J. R. Brabazon, Delavan, Wis.....	First	\$3 00
Pair Aylesbury, C. H. Belding, Shopiere, Wis.....	Second	1 00
Pair Aylesbury, C. H. Belding, Shopiere, Wis.....	Commended	
Pair Aylesbury chicks, C. H. Belding, Shopiere, Wis.....	First	3 00
Pair Rouen, C. H. Belding, Shopiere, Wis.....	First	3 00
Pair Rouen, J. R. Brabazon, Delavan, Wis.....	Second	1 00
Pair Rouen chicks, C. H. Belding, Shopiere, Wis.....	First	3 00
Pair Cayuga, C. H. Belding, Shopiere, Wis.....	First	3 00
Pair Cayuga, C. H. Belding, Shopiere, Wis.....	Second	1 00
Pair Cayuga, J. R. Brabazon, Delavan, Wis.....	Commended	
Pair Muscovy, J. R. Brabazon, Delavan, Wis.....	First	3 00
Pair Muscovy chicks, C. H. Belding, Shopiere, Wis.....	Second	1 00
Pair Pekin, Henry Davis, Dyer, Ind.....	First	3 00
Pair Pekin, J. R. Brabazon, Delavan, Wis.....	Second	1 00
Pair Pekin, Frank Harding, Waukesha, Wis.....	Commended	
Pair Pekin chicks, C. D. Smith, St. Charles.....	First	3 00
		<hr/> \$29 00

*Geese.*

Pair White China, J. R. Brabazon, Delavan, Wis.....	First	\$3 00
Pair White China, C. H. Belding, Shopiere, Wis.....	Second	1 00
Pair White China, C. H. Belding, Shopiere, Wis.....	Commended	
Pair Toulouse, J. R. Brabazon, Delavan, Wis.....	First	3 00
Pair Toulouse, C. H. Belding, Shopiere, Wis.....	Second	1 00
Pair Toulouse, C. H. Belding, Shopiere, Wis.....	Commended	
Pair Toulouse chicks, C. H. Belding, Shopiere, Wis.....	First	3 00
Pair Embden, C. H. Belding, Shopiere, Wis.....	Second	1 00
Pair wild geese, C. H. Belding, Shopiere, Wis.....		3 00
		<hr/> \$15 00

*Guineas.*

Pair White, C. H. Belding, Shopiere, Wis.....	First	\$3 00
Pair White, C. H. Belding, Shopiere, Wis.....	Second	1 00
Pair White, J. R. Brabazon, Delavan, Wis.....	Commended	
Pair White chicks, C. H. Belding, Shopiere, Wis.....	First	3 00
Pair White chicks, C. H. Belding, Shopiere, Wis.....	Second	1 00
Pair Pearl, J. R. Brabazon, Delavan, Wis.....	First	3 00
Pair Pearl chicks, C. H. Belding, Shopiere, Wis.....	First	3 00
Pair Pearl chicks, C. H. Belding, Shopiere, Wis.....	Second	1 00
		<hr/> \$15 00

## CLASS No. 62.—SWEEPSTAKES.

(6 entries.)

Best display of poultry by one exhibitor, scoring 85 points and upward, weight not considered —

C. H. Belding, Shopiere, Wis..... \$20 00

## DIVISION D.—DAIRY PRODUCTS AND REQUISITES.

S. M. EMERY, *Superintendent.*

## CLASS No. 63.—CREAMERY.

(8 entries.)

Best tub of butter made in the state containing not less than 50 pounds, New Ulm Creamery Co.....	\$30 00
Second best, F. C. McKinstry, Winnebago City, Minn.....	25 00
Third best, Northfield Creamery Co.....	20 00
Fourth best, C. G. Spaulding, Mapleton, Minn.....	15 00
Fifth best, H. Barry, Mapleton, Minn.....	10 00
Sixth best, Hassan Valley Creamery Co., Hutchinson.....	5 00
	<hr/>
	\$105 00

## CLASS No. 64.

(24 entries.)

Best tub of butter, not less than 20 pounds, made in the state, F. D. Holmes, Owatonna, Minn.....	\$30 00
Second best, Mrs. M. H. Lang, Alma City.....	25 00
Third best, Samuel Leslie, Waseca, Minn.....	20 00
Fourth best, J. G. Batchelor, Madelia, Minn.....	15 00
Fifth best, C. G. Pride, Janesville, Minn.....	10 00
Sixth best, C. Le Visconte, Hastings, Minn.....	5 00
	<hr/>
	\$105 00

## CLASS No. 65.

(12 entries.)

Best 10 pound roll butter made on a farm in Minnesota, A. F. Jones, Morristown, Minn.....	\$15 00
Second best, C. B. Wilkinson, Owatonna, Minn.....	12 00
Third best, O. H. Bradbury, Upton, Minn.....	10 00
Fourth best, Mrs. Lorenzo Hoyt, St. Paul.....	5 00
	<hr/>
	\$42 00

## CLASS No. 66.

(9 entries.)

Best 10 pounds print butter made on farm in Minnesota, Luther Weir, Lake Elmo, Minn.....	\$15 00
Second best, A. F. Jones, Morristown, Minn.....	12 00
Third best, William Lyons & Son, Minneapolis, Minn.....	10 00
Fourth best, F. D. Holmes, Owatonna, Minn.....	5 00
	<hr/>
	\$42 00



## CLASS No. 67.

(1 entry.)

Best sample butter in ornament, F. D. Holmes, Owatonna.....	\$5 00
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	\$5 00

## CLASS No. 68.

(5 entries.)

Best sample granular butter, F. D. Holmes, Owatonna, Minn.....	\$10 00
Second best, Luther Weir, Lake Elmo, Minn.....	5 00
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	\$15 00

## CLASS No. 69.

(5 entries.)

Best full cream factory cheese made in Minnesota, Eugene Bishop, Faribault, Minn.....	\$20 00
Second best, A. F. Jones, Morristown, Minn.....	15 00
Third best, McCollom & Suffel, Hallock, Minn.....	10 00
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	\$45 00

## CLASS No 70.

(3 entries.)

Best full cream dairy cheese made in Minnesota, F. D. Holmes, Owatonna, Minn.....	\$20 00
Second best, F. D. Holmes, Owatonna, Minn.....	15 00
Third best, A. F. Jones, Morristown, Minn.....	10 00
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	\$45 00

## CLASS No. 71.

(8 entries.)

Best full cream sage cheese, A. F. Jones, Morristown, Minn.....	\$10 00
Best case young Americans, McCollom & Suffel, Hallock, Minn.....	10 00
Best Switzer cheese, A. F. Jones, Morristown, Minn.....	10 00
Best Edam cheese, A. F. Jones, Morristown, Minn.....	10 00
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	\$40 00

## CLASS No. 72.—SWEEPSTAKES.

(12 entries.)

Best twenty pound butter in the state, C. LeVisconte, Hastings, Minn	\$50 00
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	\$50 00



## CLASS NO. 73.—PRO RATA.

(18 entries.)

*For Dairy Butter.*

Mrs. M. H. Lamb, Alma City, Minn.....	95 points	\$16 45
F. D. Holmes, Owatonna, Minn.....	93 points	16 10
J. G. Bachelor, Madelia, Minn.....	93 points	16 10
Samuel Leslie, Waseca, Minn.....	92 points	15 93
C. Le Visconte, Hastings, Minn.....	91 points	15 71
C. F. Pride, Janesville, Minn.....	90 points	15 50
Frank A. Leavitt, Waseca, Minn.....	88 points	15 24
A. P. McKinstry, Winnebago City, Minn.....	88 points	15 22
P. C. Younker, Hampton, Iowa.....	85 points	14 72
Mrs. N. J. Leavitt, Waseca, Minn.....	85 points	14 72
C. H. Chadbourne, Princeton, Minn.....	85 points	14 72
C. B. Wilkinson, Owatonna, Minn.....	85 points	14 72
Mrs. Rhys T. Evans, Muskoda, Minn.....	85 points	14 72

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\$199 85

## CLASS NO. 74.—PRO RATA.

(10 entries.)

*For Creamery Butter.*

William Strobel, Mapleton, Minn.....	96 points	\$26 67
New Ulm Creamery Co., New Ulm, Minn.....	96 points	26 05
Northfield Creamery Co., Northfield, Minn.....	93 points	25 85
Hassan Valley Creamery, Hutchinson, Minn.....	89 points	24 70
C. G. Spaulding, Mapleton, Minn.....	88 points	24 43
H. Berry, Mapleton, Minn.....	87 points	24 17
Lura Fountain Co. Creamery, Easton, Minn.....	86 points	23 93
F. C. McKinstry, Winnebago City, Minn.....	85 points	23 63

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\$199 40

## CLASS NO. 75.—GOLD MEDAL.

(4 entries.)

For best five pounds of pure Jersey butter, made in this state, given by The Jersey Bulletin, Indianapolis, Ind., C. Le Visconte, Hastings, Minn.

## DIVISION E.—MANUFACTURES.

E. A. YOUNG, *Superintendent.*

## CLASS No. 76.

(59 entries.)

	Premiums.	Amount.
Best display of fancy work by teacher or professional, Mrs. C. D. Smith, Minneapolis.....	First	\$10 00
Best display of fancy work by amateur, Miss May Stimble, Hastings, Minn.....	First	10 00
Best display of fancy work by amateur, Josephine Sterrett, Merriam Park, Minn.....	Second	8 00
Best pair ladies' stockings, wool, Mrs. Weed, St. Paul, Minn.		1 00
Best pair ladies' stockings, cotton, Mrs. Jennie Anderson, Litchfield.....		1 00
Best mittens, silk, Mrs. E. F. Runge, Burlington, Ia.....	First	2 00
Best mittens, silk, Mrs. B. Beverage, Minneapolis.....	Second	1 00
Best mittens, silk, Mrs. M. Flegle, Minneapolis.....	Commended	
Best mittens, wool, Mrs. Weed, St. Paul, Minn.....	First	2 00
Best pair men's socks, wool, Miss E. O. Gibbs, St. Anthony Park.		1 00
Best pair men's socks, wool, Mrs. M. E. Breeden, Minneapolis.	Commended	
Best parlor rug, wool, Rakel Dyskerland, Minneapolis.....	First	2 00
Best parlor rug, wool, Mrs. W. L. Parker, Farmington.....	Second	1 00
Best hearth rug, wool, Mrs. D. C. Davis, Bingham Lake.....	First	2 00
Best woolen sheets, Mrs. D. C. Davis, Bingham Lake.....	Commended	
Best child's dress, A. O. Powell, St. Paul, Minn.....		1 00
Best child's dress, Mrs. M. Flegle, Minneapolis, Minn.....	Commended	
Best hand made shirt, Ida H. Kelley, Farmington, Minn.....	First	3 00
Best hand made shirt, Mrs. F. G. Sterrett, Merriam Park.....	Second	2 00
Best pair curtains trimmed with lace, Mrs. E. F. Runge, Burlington, Ia.....		2 00
Best knitted wool lace, Mrs. B. Beverage, Minneapolis, Minn.	First	2 00
Best knitted wool lace, Mrs. F. S. Baldwin, Minneapolis.....	First	2 00
Best knitted cotton lace, C. G. Pride, Janesville, Minn.....		2 00
Best knitted cotton lace, Mrs. E. F. Runge, Burlington, Ia....		1 00
Best silk lace, Mrs. E. F. Runge, Burlington, Ia.....		2 00
Best sample plain sewing, embracing different stitches, Mrs. B. Beverage, Minneapolis, Minn.....		2 00
Best sample plain sewing, embracing different stitches, Mrs. M. Flegle, Minneapolis.....	Commended	
Best made night dress, Mrs. F. G. Sterrett, Merriam Park.....		1 00
Best made chemise, Mrs. Jennie Anderson, Litchfield.....	Commended	
Best fancy apron, Nettie Huntington, Minneapolis.....		2 00
Best fancy apron, Mrs. B. Beveridge, Minneapolis.....		1 00
Best fancy apron, Mrs. C. S. Worden, St. Paul.....	Commended	
Best fancy apron, Sadie F. Robinson, St. Paul.....	Commended	
Best fancy skirt, Mrs. B. Beveridge, Minneapolis.....		2 00
Specimen of drawn work, Mrs. L. J. Barlow, Minneapolis.....	Award	5 00
		<hr/> \$71 00

## CLASS NO. 77.—QUILTS AND PATCHWORK.

(51 entries.)

Best silk quilt, patchwork, Miss E. M. Hauenstein, New Ulm.....	\$4 00
Best silk quilt, patchwork, Mrs. I. N. Snow, St. Paul.....	2 00
Best silk quilt, patchwork, Mrs. B. Beveridge, Minneapolis.. .....	Commended
Best silk quilt, patchwork, Mrs. E. Cunningham, St. Paul.....	Commended
Japanese or fancy silk quilt, Mrs. E. H. Hill, Des Moines, Iowa.....	4 00
Japanese or fancy silk quilt, Mrs. M. A. Bigford, St. Paul.....	2 00
Silk crib quilt, Mrs. E. H. Hill, Des Moines, Iowa.....	3 00
Silk crib quilt, Mrs. G. S. Worden, St. Paul.....	2 00
Cotton patchwork quilt, Mrs. Fred S. Baldwin, Minneapolis.....	3 00
Cotton patchwork quilt, Mrs. F. G. Sterrett, Merriam Park.....	2 00
Cotton patchwork quilt, Mrs. M. Hardy, St. Paul.....	Commended
Worsted patchwork quilt, S. J. Barlow, Minneapolis.....	3 00
Worsted patchwork quilt, Mrs. E. H. Hill, Des Moines, Iowa.....	2 00
Worsted patchwork quilt, Mrs. J. T. Grimes, Minneapolis.....	Commended
Knitted cotton spread, Mrs. Read, St. Paul.....	4 00
Knitted cotton spread, Ida H. Kelley, Farmington.....	3 00
Log cabin quilt, Mrs. Adelina Des Laurier, Minneapolis.....	3 00
Log cabin quilt, Mrs. B. Beveridge, Minneapolis.....	2 00
Crochet spread, Mrs. Wm. Haskel, St. Paul.....	3 00
Crochet spread, Mrs. Jennie Anderson, Litchfield.....	2 00
Crochet spread, Mrs. G. S. Worden, St. Paul.....	Commended
Silk comforter, Mrs. E. H. Hill, Des Moines, Iowa.....	2 00
Worsted comforter, Mrs. F. G. Sterrett, Merriam Park.....	2 00
Worsted comforter, Rakel Dyskeland, Minneapolis.....	1 00
Worsted comforter, Grace L. Smith, Minneapolis.....	Commended
Specimen quilting, Mrs. B. Beveridge, Minneapolis.....	1 00
Japanese or patchwork sofa pillow, made up, Mrs. M. Flegle, Minneapolis.....	2 00
Japanese or patchwork sofa pillow, made up, Mrs. Weed, St. Paul....	1 00
Japanese or patchwork table cover, Mrs. E. H. Hill, Des Moines, Iowa	2 00
Japanese or patchwork table cover, Mrs. M. Flegle, Minneapolis.....	1 00
Japanese or patchwork chair strip, Mrs E. H. Hill, Des Moines, Iowa..	2 00
Shawl, Rakel Dyskeland, Minneapolis.....	1 00
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	\$59 00

## CLASS NO. 78.—ORNAMENTAL AND NEEDLE WORK.

(202 entries.)

Specimen braiding, Mrs. M. E. Breeden, Minneapolis.....	\$2 00
Braided pillow case or sham, Mrs. M. E. Breeden, Minneapolis.....	2 00
Braided pillow case or sham, Mrs. E. H. Hill, Des Moines, Iowa.....	1 00
Embroidered pillow case or sham, Mrs. B. Beveridge, Minneapolis....	4 00
Embroidered pillow case or sham, Mrs. E. H. Hill, Minneapolis.....	2 00
Embroidered pillow case or sham, Mrs. B. Beveridge, Minneapolis.....	Commended
Etching embroidered pillow case or sham, Mrs. Fred S. Baldwin, Minneapolis.....	2 00
Etching embroidered pillow case or sham, Mrs. M. Flegle, Minneapolis.	1 00

Chenille embroidered pillow case or sham, Mrs. E. H. Hill, Des Moines, Iowa .....	\$4 00
Silk embroidery, Mrs. M. Flegle, Minneapolis.....	2 00
Silk embroidery, Mrs. E. F. Runge, Burlington, Iowa .....	Commended
Worsted embroidery, Mrs. M. Flegle, Minneapolis.....	2 00
Cotton embroidery, Mrs. E. H. Hill, Des Moines, Iowa.....	2 00
Cotton embroidery, Mrs. E. H. Hill, Des Moines, Iowa.....	1 00
Cotton embroidery, Mrs. F. G. Sterrett, Merriam Park, Minn.....	Commended
Ribbon embroidery, Mrs. M. Flegle, Minneapolis, Minn.....	2 00
Kensington embroidery, silk, Mrs. E. H. Hill, Des Moines, Iowa.....	4 00
Kensington embroidery, silk, Katie Marsh, De Pere, Wis.....	2 00
Kensington embroidery, silk, Mrs. Jennie Anderson, Litchfield.....	Commended
Kensington embroidery, silk, Katie Marsh, De Pere, Wis.....	Commended
Kensington embroidery, worsted, Mrs. M. Flegle, Minneapolis.....	3 00
Kensington embroidery, worsted, Mrs. F. G. Sterrett, Merriam Park..	2 00
Arrasene embroidery, silk, Miss May Stimble, Hastings.....	3 00
Arrasene embroidery, worsted, Mrs. M. Flegle, Minneapolis.....	2 00
Plush embroidery, Mrs. E. H. Hill, Des Moines, Iowa.....	4 00
Embroidered handkerchief, Miss May Stimble, Hastings.....	2 00
Embroidered handkerchief, Miss A. O. Powell, St. Paul, Minn.....	1 00
Embroidered handkerchief, Mrs. E. H. Hill, Des Moines, Iowa.....	Commended
Embroidered fire screen, mounted, Mrs. B. Beveridge, Minneapolis....	3 00
Embroidered infant's shawl, Mrs. M. Flegle, Minneapolis.....	3 00
Toilet set embroidered, Miss May Stimble, Hastings, Minn.....	5 00
Toilet set embroidered, Mrs. E. H. Hill, Des Moines, Iowa.....	3 00
Toilet set embroidered, Mrs. F. W. Smith, Excelsior, Minn.....	Commended
Toilet cushion embroidered, Mrs. E. H. Hill, Des Moines, Iowa.....	3 00
Embroidered silk tidy, Mrs. F. G. Sterrett, Merriam Park, Minn.....	3 00
Embroidered silk tidy, Miss May Stimble, Hastings, Minn.....	2 00
Embroidered silk tidy, Mrs. E. F. Runge, Burlington, Iowa.....	Commended
Embroidered piano scarf, Miss May Stimble, Hastings, Minn.....	3 00
Embroidered table cover, Mrs. Jennie Anderson, Litchfield, Minn.....	4 00
Embroidered table cover, Mrs. A. O. Powell, St. Paul, Minn.....	3 00
Embroidered table cover, Miss May Stimble, Hastings, Minn.....	Commended
Hemstitching, Mrs. E. F. Runge, Burlington, Iowa.....	2 00
Hemstitching, Mrs. Julia A. Marsh, De Pere, Wis.....	1 00
Hemstitching, Mrs. F. G. Sterrett, Merriam Park, Minn.....	Commended
Hemstitching, Mrs. M. Flegle, Minneapolis, Minn.....	Commended
Sideboard cover or scarf, embroidered or etched, Mrs. E. H. Hill, Des Moines, Iowa.....	3 00
Sideboard cover or scarf, embroidered or etched, Miss Nettie Huntington, Minneapolis.....	2 00
Sideboard cover or scarf, embroidered or etched, Mrs. G. W. Shuman, Minneapolis.....	Commended
Bureau cover or scarf, embroidered or etched, Mrs. E. H. Hill, Des Moines, Iowa.....	3 00
Doilies embroidered and etched, Mrs. F. G. Sterrett, Merriam Park, Minn.....	2 00



Doilies embroidered and etched, Mrs. F. G. Sterrett, Merriam Park, Minn.....	\$1 00
Doilies embroidered and etched, Mrs. E. H. Hill, Des Moines, Iowa..	Commended
Chair cover, back and seat, Mrs. Jennie Anderson, Litchfield, Minn...	5 00
Chair cover, back and seat, Mrs. E. H. Hill, Des Moines, Iowa.....	3 00
Cover for ottoman or foot rest, Miss May Stimble, Hastings, Minn....	4 00
Cover for ottoman or foot rest, Mrs. F. G. Sterrett, Merriam Park, Minn.	2 00
Cover for ottoman or foot rest, Mrs. B. Beveridge, Minneapolis.....	Commended
Sofa pillow, silk, Miss May Stimble, Hastings, Minn.....	4 00
Sofa pillow, silk, Mrs. E. H. Hill, Des Moines, Iowa.....	3 00
Sofa pillow, silk, Mrs. J. B. Fish, St. Paul.....	Commended
Sofa pillow, worsted, Mrs. E. H. Hill, Des Moines, Iowa.....	3 00
Carriage afghan, Mrs. Robert Fairweather, Minneapolis.....	8 00
Carriage afghan, Mrs. A. O. Powell, St. Paul, Minn.....	4 00
Carriage afghan, Mrs. R. H. Gray, St. Paul, Minn.....	Commended
Infants afghan, Mrs. F. W. Smith, Excelsior, Minn.....	4 00
Infant afghan, Mrs. Clark Chambers, Owatonna, Minn.....	2 00
Infant afghan, Mrs. Louise Baer, St. Paul, Minn.....	Commended
Set toilet mats or canvas, Mrs. F. G. Sterrett, Merriam Park, Minn.	Commended
Infant skirt, Mrs. M. Flegle, Minneapolis, Minn.....	3 00
Infant skirt, Mrs. M. E. Breeden, Minneapolis.....	2 00
Worsted tapestry work, Mrs. F. G. Sterrett, Merriam Park.....	2 00
Japanese tidy, Mrs. E. H. Hill, Des Moines, Iowa.....	2 00
Japanese tidy, Mrs. E. H. Hill, Des Moines, Iowa.....	1 00
Worsted tapestry picture, Mrs. B. L. Harding, Des Moines, Iowa.....	5 00
Worsted tapestry picture, Mrs. E. F. Runge, Burlington, Iowa.....	Commended
Silk tapestry picture, Mrs. E. F. Runge, Burlington, Iowa.....	5 00
Lambrequin for window, Mrs. B. Beveridge, Minneapolis.....	6 00
Lambrequin for window, Mrs. E. H. Hill, Des Moines, Iowa.....	5 00
Lambrequin for mantel, Miss May Stimble, Hastings.....	5 00
Lambrequin for mantel, Mrs. Robert Fairweather, Minneapolis.....	2 00
Lambrequin for bracket, Mrs. E. H. Hill, Des Moines, Iowa.....	2 00
Table scarf, Miss G. A. Norrish, Hastings, Minn.....	3 00
Table scarf, Mrs. G. W. Shuman, Minneapolis.....	2 00
Lap robe, Mrs. E. H. Hill, Des Moines, Iowa.....	3 00
Darned net specimen, Mrs. Fred S. Baldwin, Minneapolis.....	3 00
Darned net specimen, Mrs. M. Bingham, Minneapolis.....	2 00
Darned net specimen, Mrs. Jennie Anderson, Litchfield.....	Commended
Etching in silk, Mrs. F. G. Sterrett, Merriam Park.....	3 00
Etching in silk, Mrs. F. G. Sterrett, Merriam Park.....	2 00
Etching in silk, Mrs. E. F. Runge, Burlington, Iowa.....	Commended
Tray and carving cloth, Mrs. E. H. Hill, Des Moines, Iowa.....	2 00
Tray and carving cloth, Mrs. S. H. Tracy, Burlington, Iowa.....	1 00
Tray and carving cloth, Mrs. F. G. Sterrett, Merriam Park, Minn.	Commended
Crochet undervests, Mrs. R. H. Gray, St. Paul.....	Commended
Crochet toboggan suit, Mrs. R. H. Gray, St. Paul.....	Award 2 00
Worsted scarf fascinator, Miss Dougan, St. Paul.....	Award 2 00
Worsted cape, Mrs. Haskell, St. Paul.....	Award 1 00
Embroidered slippers, Mrs. J. B. Fish, St. Paul.....	Award 1 00



Painted cover, Mrs. J. B. Fish, St. Paul.....	Award	\$3 00
Worsted skirt, Mrs. R. H. Gray, St. Paul.....	Award	1 00
Embroidered scarf, Miss Nettie Huntington, Minneapolis.....	Award	2 00
Embroidered linen, Mrs. F. G. Sterritt, Merriam Park, Minn.....	Award	3 00
		<hr/>
		\$213 00

## CLASS No. 79.

(106 entries.)

Specimen guipure lace, Mrs. E. F. Runge, Burlington, Iowa.....	\$3 00
Lamp mat, Mrs. E. M. Garden, Minneapolis, Minn.....	1 00
Darning bag, Miss Dougan, St. Paul, Minn.....	2 00
Darning bag, Mrs. E. H. Hill, Des Moines, Iowa.....	1 00
Slipper case, Mrs. E. H. Hill, Des Moines, Iowa.....	3 00
Purse, silk or bead, Mrs. B. Beveridge, Minneapolis, Minn.....	2 00
Purse, silk or bead, Mrs. Clarke Chambers, Owatonna, Minn.....	1 00
Purse, silk or bead, Mrs. B. Beveridge, Minneapolis, Minn.....	Commended
Work bag, Mrs. F. R. Sterritt, Merriam Park, Minn.....	2 00
Work bag, Mrs. E. H. Hill, Des Moines, Iowa.....	1 00
Work bag, Rakel Dyskerland, Minneapolis, Minn.....	Commended
Tidy in cotton, Mrs. C. E. Rogers, Minneapolis, Minn.....	3 00
Tidy in cotton, Miss M. E. Breeden, Minneapolis, Minn.....	2 00
Tidy in cotton, Mrs. F. R. Sterritt, Merriam Park, Minn.....	Commended
Glove case, Mrs. J. B. Fish, St. Paul.....	Award 2 00
Crochet work in worsted, Mrs. B. Beveridge, Minneapolis, Minn.....	3 00
Crochet work in worsted, Mrs. E. F. Runge, Burlington, Iowa.....	2 00
Crochet work in worsted, Mrs. C. A. Buckland, Minneapolis.....	Commended
Crochet work in cotton, Miss Kate A Mayo, St. Paul, Minn.....	3 00
Crochet work in cotton, Miss Jennie Anderson, Litchfield, Minn.....	2 00
Crochet work in cotton, Mrs. C. A. Buckland, Minneapolis.....	Commended
Toilet cushion, Mrs. E. H. Hill, Des Moines, Iowa.....	2 00
Toilet cushion, Mrs. J. B. Fish, St. Paul.....	1 00
Toilet cushion, Mrs. M. Flegle, Minneapolis, Minn.....	Commended
Work basket, Mrs. E. H. Hill, Des Moines, Iowa.....	2 00
Scrap basket, Mrs. B. Beveridge, Minneapolis, Minn.....	1 00
Table scarf, Mrs. J. B. Fish, St. Paul, Minn.....	2 00
Wash stand set, Mrs. E. H. Hill, Des Moines, Iowa.....	3 00
Wash stand set, Mrs. F. R. Sterritt, Merriam Park, Minn.....	2 00
Wash stand set, Mrs. E. F. Runge, Burlington, Iowa.....	Commended
Handsomest whisk-broom holder, Mrs. E. H. Hill, Des Moines, Iowa..	2 00
Handsomest whisk-broom holder, Mrs. E. H. Hill, Des Moines, Iowa..	1 00
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	\$49 00

*Display of Painting on Silk, etc.*

Painting on silk, Mrs. J. B. Fish, St. Paul.....	\$3 00
Painting on bolting cloth, Mrs. J. B. Fish, St. Paul.....	Commended
Painting on velvet, Clyde Loomis, Duluth, Minn.....	3 00
Painting on velvet, Mrs. J. D. Bond, St. Paul.....	Commended
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	\$6 00

*Miscellaneous.*

Clock case, carved, John E. Johnson, Moorhead, Minn.....	Award	\$5 00
Hair wreath frame, Mrs. D. H. Pease, Hamline, Minn.....	Award	3 00
Seed wreath frame, Mrs. D. H. Pease, Hamline, Minn.....	Award	2 00
Moss picture, Mrs. S. S. Stetson, Seattle, W. T.....	Award	2 00
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		\$12 00

## CLASS No. 83.

(24 entries.)

N. W. Casket Co., Minneapolis, collection caskets and undertakers' supplies.....	Diploma
W. R. Burkhard, St. Paul, guns and sporting goods .....	Diploma
St. Paul Hardware Co., builders' tools and hardware.....	Diploma
Ransom & Horton, St. Paul, furs.....	Diploma
W. H. Garland, St. Paul, trunks.....	Diploma
Brown & Haywood, St. Paul, ornamental stained glass.....	Diploma
Novelty Fabric Implement Co., rag carpets and rugs.....	Diploma
Finch, Van Slyke & Co., St. Paul, decorators and drapers.....	Diploma
Minnesota Shoe Co., St. Paul, manufacturers of fine shoes.....	Diploma
Mannheimer Bros., St. Paul, retail dry goods.....	Diploma
Blodgett & Osgood, St. Paul, refrigerators.....	Diploma
Minnesota Soap Co., St. Paul, manufacturers soap.....	Diploma
J. J. Biebighauser, St. Paul, stoves.....	Diploma
J. L. Hudson, St. Paul, gents' clothing and furnishing.....	Diploma
Goodyear Rubber Co., St. Paul, rubber goods.....	Diploma
Schliek & Co., St. Paul, custom made boots and shoes.....	Diploma
Aug. Oppenheimer, St. Paul, wholesale millinery.....	Diploma
Griggs & Co., St. Paul, wholesale grocers.....	Diploma
W. W. Kimball & Co., St. Paul, pianos and organs.....	Diploma
P. V. Dwyer & Bros., St. Paul, fine art gas fixtures.....	Diploma
W. H. Konantz & Bros., harness, saddlery, turf goods, etc., St. Paul...	Diploma
North Star Woolen Mills, Minneapolis, manufacturers blankets.....	Diploma
St. Paul Tobacco Works, St. Paul, manufacturers fine cut chewing and smoking tobacco.....	Diploma
Pillsbury Mills, Minneapolis, manufacturers flour.....	Diploma
A. Decker & Co., stoves .....	Diploma

## DIVISION G.—FRUITS AND FLOWERS.

WYMAN ELLIOT, *Superintendent.*

A. W. SIAS, Judge Classes 89, 90, 93.  
 WILLIAM LYONS, Judge Classes 89, 90.  
 J. F. GILMORE, Judge Class 89.  
 J. S. HARRIS, Judge Classes 89, 90, 93.  
 H. J. LUDLOW, Judge Classes 92, 93.  
 ISAAC GILPATRICK, Judge Class 92.  
 JAMES B. GREEN, Judge Classes 95, 96.  
 FRANK D. CARLTON, Judge Classes 95, 96.  
 S. D. HILLMAN, Judge Classes 95, 96.

## CLASS No. 89.—APPLES (Professional List).

(164 entries.)

## Best Collection of Apples (Crabs and Siberians excepted) Ten Varieties—

	Premiums.	Amount.
J. S. Harris, La Crescent, Iowa.....	First	\$15 00
E. H. S. Dartt, Owatonna, Minn.....	Second	10 00
Chas. Hawkinson, Minneapolis.....	Third	8 00
Ditus Day, Farmington, Minn.....	Fourth	5 00

## Best Ten Varieties adapted to Minnesota—

E. H. S. Dartt, Owatonna, Minn.....	First	10 00
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## Collection of Siberians or Hybrids, not to Exceed Ten Varieties—

Wm. Sommerville, Viola, Minn.....	First	10 00
J. S. Harris, La Crescent.....	Second	5 00
Mrs. M. A. Pearce, Chowen, Minn.....	Third	3 00
E. H. S. Dartt, Owatonna, Minn.....	Fourth	2 00

*Single Plates.*

Plate apples grown in Minnesota, E. H. S. Dartt, Owatonna.	First	3 00
Plate apples grown in Minnesota, W. L. Parker, Farmington..	Second	2 00
Plate Duchess of Oldenburg, E. H. S. Dartt, Owatonna.....	First	3 00
Plate Duchess of Oldenburg, H. J. Ludlow, Worthington.....	Second	2 00
Plate Duchess of Oldenburg, Chas. Hawkinson, Minneapolis.	Third	1 00
Plate Wealthy, H. J. Ludlow, Worthington.....	First	3 00
Plate Wealthy, C. W. Gordon, Long Lake.....	Second	2 00
Plate Wealthy, Chas. Hawkinson, Minneapolis.....	Third	1 00
Plate Peach, E. H. S. Dartt, Owatonna.....	First	3 00
Plate Peach, Ditus Day, Farmington, Minn.....	Third	1 00
Plate Elgin Beauty, Sidney Carp, Hammond, Minn.....	First	3 00
Plate Hart, I. W. Hart.....	First	3 00
Plate May, I. W. Hart .....	First	3 00
Plate Wabasha, Sydney Carp, Hammond, Minn.....	First	3 00
Plate Transcendent Crabs, Rudolph Knapheide, St. Paul,	First	2 00

	Premiums.	Amount.
Plate Transcendent Crabs, C. W. Gordon, Long Lake, Minn...	Second	1 00
Plate Hyslops, Sydney Carp, Hammond, Minn.....	First	2 00
Plate Hyslops, C. W. Gordon, Long Lake, Minn.....	Second	1 00
Plate Virginia Crabs, Rolla Stubbs, Long Lake, Minn.....	First	2 00
Plate Virginia Crabs, Rudolph Knapheide, St. Paul, Minn....	Second	1 00
Plate Orange, Ditus Day, Farmington, Minn.....	First	2 00
Plate Orange, Sidney Carp, Hammond, Minn.....	Second	1 00
Plate Minnesota, Chas. Hawkinson, Minneapolis, Minn.....	First	2 00
Plate Minnesota, E. H. S. Dartt, Owatonna, Minn.....	Second	1 00
Plate Whitney No. 20, Sidney Carp, Hammond, Minn.....	First	2 00
Plate Whitney No. 20, Rolla Stubbs, Long Lake, Minn.....	Second	1 00
Plate Powers, Mrs. M. A. Pearce, Chowen, Minn.....	First	2 00
Plate Powers, Ditus Day, Farmington, Minn.....	Second	1 00
Plate Maiden Blush, E. H. S. Dartt, Owatonna, Minn.....	First	2 00
Plate Maiden Blush, Ditus Day, Farmington, Minn.....	Second	1 00
Plate Beech's Sweet, Chas. Hawkinson, Minneapolis, Minn...	First	2 00
Plate Beecher's Sweet, E. H. S. Dartt, Owatonna, Minn.....	Second	1 00

*(By Amateurs or Farmers.)*

Best collection of apples best adapted to Minnesota, ten varieties —

Wm. Sommerville, Viola, Minn.....	First best	10 00
Sidney Carp, Hammond, Minn .....	Second best	5 00
W. L. Parker, Farmington, Minn.....	Third best	3 00

Collection of apples best adapted to Minnesota, five varieties —

Wm. Sommerville, Viola, Minn.....	First	5 00
A. W. Latham, Excelsior, Minn.....	Second	3 00

Best three varieties autumn apples, adapted to Minnesota —

Wm. Sommerville, Viola, Minn.....	First	5 00
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Best three varieties winter apples, adapted to Minnesota —

Wm. Sommerville, Viola, Minn.....	First	5 00
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*Grown in Minnesota.*

Plate Wealthy, W. L. Parker, Farmington, Minn.....	First	3 00
Plate Wealthy, Wm. Sommerville, Viola, Minn.....	Second	2 00
Plate Duchess of Oldenburg, C. J. Krames, La Crescent.....	First	3 00
Plate Duchess of Oldenburg, Wm. Sommerville, Viola, Minn	Second	2 00
Plate Duchess of Oldenburg, W. L. Parker, Farmington, Minn	Third	1 00
Plate Tetofsky, Wm. Sommerville, Viola, Minn.....	First	3 00
Plate Tetofsky, W. L. Parker, Farmington, Minn.....	Second	2 00
Plate Elgin Beauty, Wm. Sommerville, Viola, Minn.....	First	3 00
Plate Wabasha, Wm. Sommerville, Viola, Minn.....	First	3 00
Plate Transcendent, W. L. Parker, Farmington, Minn.....	First	2 00
Plate Transcendent, A. W. Latham, Excelsior, Minn.....	Second	1 00
Plate Hyslops, Wm. Sommerville, Viola, Minn.....	First	2 00
Plate Hyslops, W. L. Parker, Farmington, Minn.....	Second	1 00
Plate Virginia Crabs, F. H. Gibbs, St. Anthony Park, Minn...	First	2 00
Plate Virginia Crabs, W. L. Parker, Farmington, Minn.....	Second	1 00
Plate Orange, W. L. Parker, Farmington, Minn.....	First	2 00
Plate Orange, Wm. Sommerville, Viola, Minn.....	Second	1 00



	Premiums.	Amount.
Plate Minnesota, W. L. Parker, Farmington, Minn.....	First	2 00
Plate Minnesota, Wm. Sommerville, Viola, Minn.....	Second	1 00
Plate Whitney No. 20, W. L. Parker, Farmington, Minn.....	First	2 00
Plate Whitney No. 20, Wm. Sommerville, Viola, Minn.....	Second	1 00
Plate Powers, W. L. Parker, Farmington, Minn.....	First	2 00
Plate Powers, Wm. Sommerville, Viola, Minn.....	Second	1 00
Plate Maidens Blush, W. L. Parker, Farmington, Minn.....	First	2 00
Plate Maidens Blush, Wm. Sommerville, Viola, Minn.....	Second	1 00
Plate Beecher's Sweet, W. L. Parker, Farmington, Minn.....	First	2 00
		<hr/> \$212 00

## CLASS No. 90.—RUSSIAN APPLES.

(36 entries.)

*Best Collection of New Russian Apples, ten or more varieties.*

A. G. Tuttle, Baraboo, Wis.....	First	\$20 00
Wm. Sommerville, Viola, Minn.....	Second	15 00
C. H. Greenman, Chatfield, Minn.....	Third	10 00
Andrew Peterson, Waconia, Minn.....	Fourth	8 00
Plate Golden White, A. G. Tuttle, Baraboo, Wis.....	First	3 00
Plate Golden White, Wm. Sommerville, Viola, Minn.....	Second	2 00
Plate Charlamoff, A. G. Tuttle, Baraboo, Wis.....	First	3 00
Plate Charlamoff, Andrew Peterson, Waconia.....	Second	2 00
Plate White Pigeon, A. G. Tuttle, Baraboo, Wis.....	First	3 00
Plate White Pigeon, Wm. Sommerville, Viola, Minn.....	Second	2 00
Plate Antonovka, A. G. Tuttle, Baraboo, Wis.....	First	3 00
Plate Russian Autumn Streaked, Sydney Carp, Hammond, Minn	First	3 00
Plate Russian Autumn Streaked, A. G. Tuttle, Baraboo, Wis.	Second	2 00
Plate Zolatoreff, A. G. Tuttle, Baraboo, Wis.....	First	3 00
Plate Repka, A. G. Tuttle, Baraboo, Wis.....	First	3 00
Plate Red Block, Wm. Sommerville, Viola, Minn.....	First	3 00
Plate Hiberna, A. G. Tuttle, Baraboo, Wis.....	First	3 00
Plate Longfield, A. G. Tuttle, Baraboo, Wis.....	First	3 00
Plate Longfield, Wm. Sommerville, Viola, Minn.....	Second	2 00
Plate Yellow Trans, A. G. Tuttle, Baraboo, Wis.....	First	3 00
Plate Green Salonka, Wm. Sommerville, Viola, Minn.....	First	3 00
Plate Winter Oporto, A. G. Tuttle, Baraboo, Wis.....	First	3 00
Plate Liebby, Andrew Peterson, Winona, Minn.....	First	3 00
Plate Liebby, A. W. Latham, Excelsior, Minn.....	Second	2 00
Plate Liebby, Wm. Sommerville, Viola, Minn.....	Third	1 00
		<hr/> \$108 00

## CLASS No. 91.—SEEDLING APPLES, OF NORTHWESTERN ORIGIN.

(7 entries.)

Best collection seedling apples—

S. D. Richardson, Winnebago City, Minn .....	\$10 00
E. A. Thompson.....	Diploma

Best single variety for all purposes—

Jacob Klein, Hokah, Minn.....	First	5 00
J. C. Krames, La Crescent.....	Second	3 00

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\$18 00



## CLASS No. 92.—GRAPES.

(71 entries.)

	Premiums.	Amount.
Best and greatest collection grapes adapted to Minnesota—		
A. W. Latham, Excelsior, Minn.....		\$20 00
Mrs. M. A. Pearce, Chowen, Minn.....		10 00
Best ten varieties adapted to Minnesota—		
Rudolph Knapheide, St. Paul.....	First	15 00
A. W. Latham, Excelsior, Minn.....	Second	10 00
L. W. Pettijohn, Excelsior, Minn.....	Third	8 00
Plate Delawares, Mrs. M. A. Pearce, Chowen, Minn.....	First	2 00
Plate Delawares, Rudolph Knapheide, St. Paul.....		1 00
Plate Delawares, L. W. Pettijohn, Excelsior, Minn.....	Commended	
Plate Concords, Rudolph Knapheide, St. Paul.....		2 00
Plate Concords, A. W. Latham, Excelsior, Minn.....		1 00
Plate Concords, L. W. Pettijohn, Excelsior, Minn.....	Commended	
Plate Worden, L. W. Pettijohn, Excelsior, Minn.....	First	2 00
Plate Worden, A. W. Latham, Excelsior, Minn.....	Second	1 00
Plate Worden, Rudolph Knapheide, St. Paul.....	Commended	
Plate Massasoit, Rodgers No. 3, Rudolph Knapheide, St. Paul	First	2 00
Plate Massasoit, Rodgers No. 3, Rudolph Knapheide, St. Paul	Second	1 00
Plate Massasoit, Rodgers No. 3, A. W. Latham, Excelsior, Minn.....	Commended	
Plate Wilder, Rodgers No. 4, Mrs. M. A. Pearce, Chowen, Minn	First	2 00
Plate Wilder, Rudolph Knapheide, St. Paul, Minn.....	Second	1 00
Plate Wilder, A. W. Latham, Excelsior, Minn.....	Commended	
Plate Lindsay, Rodgers No. 9, L. W. Pettijohn, Excelsior, Minn.....	First	2 00
Plate Lindsay, Rudolph Knapheide, St. Paul.....	Second	1 00
Plate Lindsay, A. W. Latham, Excelsior, Minn.....	Commended	
Plate Agawam, Rodgers No. 4, A. W. Latham, Excelsior, Minn.	First	2 00
Plate Agawam, L. W. Pettijohn, Excelsior, Minn.....	Second	1 00
Plate Barry, Rodgers No. 19, Rudolph Knapheide, St. Paul..	First	2 00
Plate Barry, A. W. Latham, Excelsior, Minn.....	Second	1 00
Rodgers No. 39, M. A. Pierce, Chowen.....		3 00
Rodgers No. 39, A. W. Latham, Excelsior.....	Commended	
Brighton, Rudolph Knapheide, St. Paul.....		3 00
Brighton, A. W. Latham, Excelsior.....	Commended	
Lady, A. W. Latham, Excelsior.....		3 00
Lady, Rudolph Knapheide, St. Paul.....	Commended	
Moore's Early, L. M. Pettijohn, Excelsior.....		3 00
Moore's Early, Rudolph Knapheide, St. Paul.....	Commended	
Iona, A. W. Latham, Excelsior.....		3 00
Iona, Rudolph Knapheide, St. Paul.....	Commended	
Janesville, Rudolph, Knapheide, St. Paul.....		3 00
Janesville, A. W. Latham, Excelsior.....	Commended	
Early Victor, Rudolph Knapheide, St. Paul.....		3 00
Early Victor, A. W. Latham, Excelsior.....	Commended	
Niagara, Mrs. M. A. Pierce, Chowen.....		3 00

	Premiums.	Amount.
Niagara, Bell Barton, Excelsior.....	Commended	
Duchess, A. W. Latham, Excelsior.....		\$3 00
Best seedling, Rudolph Knapheide, St. Paul.....	First	3 00
		<hr/>
		\$117 00

## CLASS No. 93.—MISCELLANEOUS FRUITS.

(45 entries.)

Collection Strawberries, Minnesota Grown, Shown in Jars—		
Miss Julia Lyons, Minneapolis.....		\$10 00
Mrs. Gaylord Sexton, Faribault, Minn.....		5 00
C. L. Smith, Minneapolis.....		3 00
Best Ancient Briton blackberries, Minnesota Grown, Shown in Jars—		
Miss Julia Lyons, Minneapolis.....	First	3 00
C. L. Smith, Minneapolis.....	Second	2 00
Snyder blackberries, Miss Julia Lyons, Minneapolis .....	First	3 00
Snyder blackberries, C. L. Smith, Minneapolis.....	Second	2 00
Stone's Hardy, C. L. Smith, Minneapolis.....	First	3 00
Collection currants shown in glass jar, C. L. Smith, Minne- apolis .....	First	3 00
Collection currants shown in glass jar, Miss Julia Lyons, Min- neapolis .....	Second	2 00
Collection blackberries shown in glass jar, Miss Julia Lyons, Minneapolis .....	First	3 00
Collection raspberries shown in glass jar, Miss Julia Lyons, Minneapolis .....	First	3 00
Collection raspberries shown in glass jar, C. L. Smith, Min- neapolis .....	Second	2 00

*Native Plums.*

Best collection not less than five varieties—

Rudolph Knapheide, St. Paul.....	First	\$10 00
J. C. Krames, La Crescent.....	Second	5 00
A. W. Latham, Excelsior.....	Third	3 00
Single plate, Rudolph Knapheide, St. Paul.....	First	2 00
Single plate, Francis Dick, Afton .....	Second	1 00
Forest Garden, A. W. Latham, Excelsior.....	First	1 00
Plate De Soto, J. C. Krames, La Crescent.....	First	2 00
Plate De Soto, J. T. Grimes, Minneapolis.....	Second	1 00
Best and greatest variety of cultivated cranberries, A. G. Tuttle, Baraboo, Wis .....	First	20 00
		<hr/>
		\$90 00

## CLASS No. 95.—FLOWERS.

(70 entries.)

Display of green and hothouse plants in pots, L. L. May & Co. St. Paul .....	First	\$25 00
Display of green and hothouse plants in pots, Mendenhall Greenhouse, Minneapolis.....	Second	20 00
Display of green and hothouse plants in pots, John Vasatka, Minneapolis .....	Third	15 00

	Premiums.	Amount.
Display of coleus, six or more colors, Mendenhall Greenhouse, Minneapolis.....	First	\$3 00
Display of coleus, six or more colors, John Vasatka, Minneapolis.....	Second	2 00
Display of coleus, six or more colors, L. L. May & Co., St. Paul.....	Commended	
Single specimen coleus, L. L. May & Co., St. Paul.....	First	2 00
Single specimen coleus, Mendenhall Greenhouse, Minneapolis.....	Second	1 00
Single specimen coleus, John Vasatka, Minneapolis.....	Commended	
Display of geraniums, six or more colors, in bloom, John Vasatka, Minneapolis.....	First	5 00
Display of geraniums, six or more colors, in bloom, Mendenhall Greenhouse, Minneapolis.....	Second	3 00
Single geranium, in bloom, Mendenhall Greenhouse, Minneapolis.....	First	2 00
Double geranium, in bloom, Mendenhall Greenhouse, Minneapolis.....	First	2 00
Double geranium, in bloom, John Vasatka, Minneapolis.....	Second	1 00
Six fuchsia, in bloom, Mendenhall Greenhouse, Minneapolis..	First	5 00
Six fuchsia, in bloom, John Vasatka, Minneapolis.....	Second	3 00
Single fuchsia, in bloom, Mendenhall Greenhouse, Minneapolis	First	2 00
Single fuchsia, in bloom, John Vasatka, Minneapolis.....	Second	1 00
Double fuchsia, in bloom, Mendenhall Greenhouse, Minneapolis	First	2 00
Double fuchsia, in bloom, John Vasatka, Minneapolis.....	Second	1 00
Six roses in pots, in bloom, Mendenhall Greenhouse, Minneapolis.....	First	5 00
Rose, single plant, in bloom, Mendenhall Greenhouse, Minneapolis.....	First	2 00
Single specimen plant, any variety, L. L. May & Co., St. Paul	First	2 00
Single specimen plant, any variety, Mendenhall Greenhouse, Minneapolis.....	Second	1 00
Collection cactus, ten or more varieties, John Vasatka, Minneapolis.....	First	5 00
Collection cactus, ten or more varieties, Mendenhall Greenhouse, Minneapolis.....	Second	3 00
Display of ten or more varieties of foliage plants in pots, L. L. May & Co., St. Paul.....	First	5 00
Display of ten or more varieties of foliage plants in pots, Mendenhall Greenhouse, Minneapolis.....	Second	3 00
Display of ten or more varieties of foliage plants in pots, John Vasatka, Minneapolis.....	Third	2 00
Display of five varieties climbing vines, Mendenhall Greenhouse, Minneapolis.....	First	3 00
Display of five varieties climbing vines, John Vasatka, Minneapolis.....	Second	2 00
Display of five varieties hanging baskets, Mendenhall Greenhouse, Minneapolis.....	First	3 00
Display of five varieties hanging baskets, John Vasatka, Minneapolis.....	Second	2 00

*Cut Flowers.*

	Premiums.	Amount.
Display of natural leaves and flowers artistically arranged, L.		
L. May & Co., St. Paul.....	First	\$10 00
Basket cut flowers, L. L. May & Co., St. Paul.....	First	3 00
Pyramid bouquet of roses, L. L. May & Co., St. Paul.....	First	3 00
Hand bouquet, L. L. May & Co., St. Paul.....	First	3 00
Assortment of annual flowers, L. L. May & Co., St. Paul.....	First	5 00
Asters, twelve assorted colors, Wm. Toole, Baraboo, Wis.....	First	3 00
Asters, twelve assorted colors, L. L. May & Co., St. Paul.....	Second	2 00
Gladiolus, twelve distinct colors, L. L. May & Co., St. Paul.....	First	3 00
Tuberose, twelve plants in bloom, L. L. May & Co., St. Paul.....	First	3 00
Tuberose, twelve plants in bloom, Mendenhall Greenhouse, Minneapolis.....	Second	2 00
Pansies, twenty-five distinct colors, Wm. Toole, Baraboo Wis.	First	3 00
Pansies, twenty-five distinct colors, L. L. May & Co., St. Paul.....	Second	2 00
Petunias, double, six colors, L. L. May & Co., St. Paul.....	First	3 00
Pink, Hedgewigii, six colors, Wm. Toole, Baraboo, Wis.....	First	3 00

\$181 00

## CLASS No. 96.—FLOWERS.

(32 entries.)

*Non-Professional Growers.*

Display of greenhouse plants in pots, Miss Julia Lyons, Min- neapolis .....	First	\$10 00
Single geranium, Miss Julia Lyons, Minneapolis.....	First	2 00
Fuchsias in bloom, Miss Julia Lyons, Minneapolis.....	First	2 00
Single fuchsia in bloom, Mrs. F. A. Rodgers, Minneapolis.....	First	2 00
Double fuchsia, Miss Julia Lyons, Minneapolis.....	First	2 00
Collection cactus, five varieties, Miss Julia Lyons, Minneapolis	First	3 00
Single specimen cactus, Miss Julia Lyons, Minneapolis.....	First	2 00
Display of five varieties foliage, Miss Julia Lyons, Minneapolis	First	2 00
Specimen climbing vine, Miss Julia Lyons, Minneapolis.....	First	2 00
Hanging basket, Miss Julia Lyons, Minneapolis.....	First	2 00

*Cut Flowers.*

Best and most artistically arranged floral design of leaves and flowers, Miss Shuman, Minneapolis.....	First	10 00
Best and most artistically arranged floral design of leaves and flowers, Mrs. F. J. Wilcox, Northfield.....	Second	5 00
Best and most artistically arranged floral design of leaves and flowers, G. W. Shuman, Minneapolis .....	Third	3 00
Best and most tastefully arranged collection annual cut flow- ers, Mrs. F. A. Rodgers, Minneapolis.....	First	5 00
Best and most tastefully arranged collection annual cut flow- ers, Miss Julia Lyons, Minneapolis.....	Second	3 00
Largest and handsomest half bushel potatoes, any varieties— Lorenzo Hoyt, St. Paul.....	First	3 00
John Lyons, Minneapolis. ....	Second	2 00
Pat Quinlan, Hamline.....	Third	1 00



	Premiums.	Amount.
Best and most tastefully arranged basket of flowers, Miss Julia Lyons, Minneapolis.....	First	\$2 00
Best and most tastefully arranged basket of flowers, Mrs. F. A. Rodgers, Minneapolis.....	Second	1 00
Best and most tastefully arranged hand bouquet, Miss Julia Lyons, Minneapolis.....	First	2 00
Best and most tastefully arranged hand bouquet, Mrs. F. A. Rodgers, Minneapolis.....	Second	1 00
Bouquet ornamental grasses, G. W. Shuman, Minneapolis.....	First	2 00

*By Young Amateurs Under Sixteen Years, Boys or Girls.*

Best and most artistically arranged designs in annual cut flowers, Miss Carrie Nagle, Minneapolis.....	First	10 00
Best and most artistically arranged designs in annual cut flowers, Jessie Shuman, Minneapolis.....	Second	5 00
Best and most tastefully arranged display of pansies, Miss Carrie Nagle, Minneapolis.....	First	5 00
Best floral design in everlasting flowers, Miss Carrie Nagle, Minneapolis.....		5 00
		<hr/> \$38 00

## DIVISION H.

WYMAN ELLIOT, *Superintendent.*

E. H. S. DARTT, J. G. BASS, JOHN C. KRAMES, Judges.

### CLASS NO. 97.—VEGETABLES.

(320 entries.)

Best display of potatoes adapted to general cultivation, not less than eight varieties, one peck each —	Premiums.	Amount.
D. J. Chowen, Chowen, Minn.....	First	\$5 00
John Lyons, Minneapolis.....	Second	3 00
August Wittman, St. Paul.....	Third	2 00
Best early potato, P. C. Sherion, St. Paul.....	First	3 00
Best early potato, P. C. Sherion, St. Paul.....	Second	2 00
Best early potato, Francis Deek, Afton.....	Third	1 00
Best keeping variety late potato, Francis Deek, Afton.....	First	3 00
Best keeping variety late potato, Francis Deek, Afton.....	Second	2 00
Best keeping variety late potato, August Wittman, St. Paul.....	Third	1 00
Best peck seeding potatoes, for table use, variety never before exhibited —		
P. C. Sherron, St. Paul.....	First	3 00
		<hr/> \$31 00



*Beets.*

	Premiums.	Amount.
Twelve long blood beets, table, P. C. Sherion, St. Paul.....	First	\$3 00
Twelve long blood beets, table, August Wittman, St. Paul....	Second	2 00
Twelve turnip root beets, Wm. Boetcher, Jr., St. Paul.....	First	3 00
Twelve turnip root beets, Nicholas Humes, St. Paul.....	Second	2 00
Twelve turnip root beets, F. H. Gibbs, St. Anthony Park.....	Third	1 00
Twelve long red mangels, Shuman & Co., Minneapolis.....	First	3 00
Twelve long red mangels, John Lyons, Minneapolis.....	Second	2 00
Twelve long red mangels, P. C. Sherion, St. Paul.....	Third	1 00
Twelve yellow globe mangels, August Wittman, St. Paul....	First	3 00
Twelve yellow globe mangels, P. C. Sherion, St. Paul.....	Second	2 00
Twelve white French sugar beets, August Wittman, St. Paul, First		3 00
Twelve white French sugar beets, P. C. Sherion, St. Paul.....	Second	2 00

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\$27 00*Miscellaneous.*

Twelve long orange carrots, Shuman & Co., Minneapolis.....	First	\$3 00
Twelve long orange carrots, John Lyons, Minneapolis.....	Second	2 00
Twelve long orange carrots, August Wittman, St. Paul.....	Third	1 00
Twelve Danver's yellow carrots, table, Nicholas Humes, St. Paul.....	First	3 00
Twelve Danver's yellow carrots, table, August Wittman, St. Paul.....	Second	2 00
Twelve Danver's yellow carrots, table, Shuman & Co., Minneapolis.....	Third	1 00
Twelve early Shorthorn, table, John Lyons, Minneapolis.....	First	3 00
Twelve early Shorthorn, table, Nicholas Humes, St. Paul....	Second	2 00
Twelve early Shorthorn, table, Shuman & Co., Minneapolis...	Third	1 00
Six flat Dutch cabbages, August Wittman, St. Paul.....	First	3 00
Six flat Dutch cabbages, William Bobleter, St. Paul.....	Second	2 00
Six flat Dutch cabbages, John Lyons, Minneapolis.....	Third	1 00
Six drumhead, William Boetcher, Jr., St. Paul.....	First	3 00
Six drumhead, John Lyons, Minneapolis.....	Second	2 00
Six drumhead, Nicholas Humes, St. Paul.....	Third	1 00
Six Winningstadt cabbages, August Wittman, St. Paul.....	First	3 00
Six Winningstadt cabbages, Nicholas Humes, St. Paul.....	Second	2 00
Six Winningstadt cabbages, John Lyons, Minneapolis.....	Third	1 00
Three cauliflowers, August Wittman, St. Paul.....	First	3 00
Three cauliflowers, Nicholas Humes, St. Paul.....	Second	2 00
Three cauliflowers, John Lyons, Minneapolis.....	Third	1 00
Six yellow rutabaga turnips, August Wittman, St. Paul.....	First	3 00
Six yellow rutabaga turnips, John Lyons, Minneapolis.....	Second	2 00
Six English white flat turnips, August Wittman, St. Paul....	First	3 00
Six English white flat turnips, John Lyons, Minneapolis.....	Second	2 00
Six white Swedish rutabagas, John Lyons, Minneapolis.....	First	3 00
Six kohlrabi, William Boetcher, Jr., St. Paul.....	First	3 00
Six kohlrabi, Nicholas Humes, St. Paul.....	Second	2 00
Six kohlrabi, August Wittman, St. Paul.....	Third	1 00
Twelve salsify or vegetable oysters, Nicholas Humes, St. Paul. First		3 00

	Premiums.	Amount.
Twelve salsify or vegetable oysters, Wm. Boetcher, Jr., St. Paul.	Second	\$2 00
Twelve salsify or vegetable oysters, Shuman & Co., Minneapolis .....	Third	1 00
Twelve ears evergreen sweet corn, August Wittman, St. Paul.	First	3 00
Twelve ears evergreen sweet corn, P. C. Sherron, St. Paul.....	Second	2 00
Twelve ears evergreen sweet corn, John Lyons, Minneapolis..	Third	1 00
Twelve ears Moore's early concord, Shuman & Co., Minneapolis.....	First	3 00
Twelve ears Moore's early concord, P. C. Sherron, St. Paul..	Second	2 00
Twelve ears Moore's early concord, J. G. Bass, Hamline.....	Third	1 00
Half peck lima beans, in pod, August Wittman, St. Paul.....	First	3 00
Half peck lima beans, in pod, Wm. Boetcher, Jr., St. Paul..	Second	2 00
Half peck lima beans, in pod, John Lyons, Minneapolis.....	Third	1 00
Half peck wax string beans, in pod, John Lyons, Minneapolis.	First	3 00
Half peck wax string beans, in pod, Shuman & Co., Minneapolis .....	Second	2 00
Half peck wax string beans, in pod, Nicholas Humes, St. Paul.	Third	1 00
Peck red weathersfield onions, C. S. Smith, Minneapolis.....	First	3 00
Peck red weathersfield onions, John Lyons, Minneapolis.....	Second	2 00
Peck red weathersfield onions, Shuman & Co., Minneapolis..	Third	1 00
Peck yellow globe onions, Shuman & Co., Minneapolis.....	First	3 00
Peck yellow globe onions, John Lyons, Minneapolis.....	Second	2 00
Peck yellow globe onions, Ernest Smith, Minneapolis.....	Third	1 00
Peck white globe onions, John Lyons, Minneapolis.....	First	3 00
Peck white globe onions, August Wittman, St. Paul.....	Second	2 00
Peck white globe onions, Nicholas Humes, St. Paul.....	Third	1 00
Half peck white pickling onions, Wm. Boetcher, Jr., St. Paul..	First	3 00
Half peck white pickling onions, F. H. Gibbs, St. Anthony Park.....	Second	2 00
Half peck white pickling onions, August Wittman, St. Paul..	Third	1 00
Three largest potatoes, any variety, Pat Quinlan, Hamline...		2 00
Three largest potatoes, any variety, John Lyons, Minneapolis.		1 00
Half peck tomatoes for all purposes, John Lyons, Minneapolis.	First	3 00
Half peck tomatoes for all purposes, August Wittman, St. Paul.	Second	2 00
Half peck tomatoes for all purposes, Shuman & Co., Minneapolis.....	Third	1 00
Largest squash, any variety, August Wittman, St. Paul.....	First	3 00
Largest squash, any variety, P. C. Sherron, St. Paul.....	Second	2 00
Largest squash, any variety, Wm. Boetcher, Jr., St. Paul.....	Third	1 00
Three Hubbard squashes, John Lyons, Minneapolis.....	First	3 00
Three Hubbard squashes, August Wittman, St. Paul.....	Second	2 00
Three Hubbard squashes, Shuman & Co., Minneapolis.....	Third	1 00
Boston marrow squashes, Shuman & Co., Minneapolis.....	First	3 00
Boston marrow squashes, John Lyons, Minneapolis.....	Second	2 00
Boston marrow squashes, Wm. Boetcher, Jr., St. Paul.....	Third	1 00
Three Turban squashes, August Wittman, St. Paul.....	First	3 00
Three Turban squashes, John Lyons, Minneapolis.....	Second	2 00
Three Little Gem, Wm. Boetcher, Jr., St. Paul.....	First	3 00
Three Little Gem, August Wittman, St. Paul.....	Second	2 00

	Premiums.	Amount.
Three Marblehead, August Wittman, St. Paul.....	First	\$3 00
Three field pumpkins, Nicholas Humes, St. Paul.....	First	3 00
Three field pumpkins, John Lyons, Minneapolis.....	Second	2 00
Three field pumpkins, P. C. Sherron, St. Paul .....	Third	1 00
Three pie pumpkins, Shuman & Co., Minneapolis .....	First	3 00
Three pie pumpkins, John Lyons, Minneapolis.....	Second	2 00
Three watermelons, John Lyons, Minneapolis .....	First	3 00
Three watermelons, Ernest Smith, Minneapolis .....	Second	2 00
Three muskmelons, John Lyons, Minneapolis.....	First	3 00
Three muskmelons, Shuman & Co., Minneapolis .....	Second	2 00
Three citrons, John Lyons, Minneapolis .....	First	3 00
Three citrons, August Wittman, St. Paul.....	Second	2 00
Six cucumbers, Shuman & Co., Minneapolis.....	First	3 00
Six cucumbers, John Lyons, Minneapolis.....	Second	2 00
Six cucumbers, Ernest Smith, Minneapolis.....	Third	1 00
Half peck pickling cucumbers, Shuman & Co., Minneapolis...	First	3 00
Half peck pickling cucumbers, John Lyons, Minneapolis.....	Second	2 00
Half peck pickling cucumbers, Nicholas Humes, St. Paul.....	Third	1 00
Six egg plants, August Wittman, St. Paul.....	First	3 00
Six egg plants, Nicholas Humes, St. Paul.....	Second	2 00
Six egg plants, John Lyons, Minneapolis.....	Third	1 00
Twelve large red bell peppers, Wm. Boetcher, Jr., St. Paul...	First	3 00
Twelve large red bell peppers, August Wittman, St. Paul.....	Second	2 00
Twelve large red bell peppers, Shuman & Co., Minneapolis....	Third	1 00
Half peck okra, Wm. Boetcher, Jr., St. Paul.....	First	3 00
Half peck okra, August Wittman, St. Paul.....	Second	2 00
Half peck okra, John Lyons, Minneapolis.....	Third	1 00
Five heads celery, Wm. Boetcher, St. Paul.....	First	3 00
Five heads celery, Shuman & Co., Minneapolis.....	Second	2 00
Five heads celery, Nicholas Humes, St. Paul.....	Third	1 00
Six heads lettuce, Shuman & Co., Minneapolis.....	First	3 00
Six heads lettuce, Nicholas Humes, St. Paul.....	Second	2 00
Six heads lettuce, F. H. Gibbs, St. Anthony Park.....	Third	1 00
Parsnips, hollow crown, P. C. Sherroh, St. Paul.....		1 00
Six heads endive, Wm. Boetcher, Jr., St. Paul.....	First	3 00
Six heads endive, Nicholas Humes, St. Paul.....	Second	2 00
Twelve stalks rhubarb, John Lyons, Minneapolis.....	First	3 00
Twelve stalks rhubarb, Shuman & Co., Minneapolis.....	Second	2 00
Twelve stalks rhubarb, August Wittman, St. Paul.....	Third	1 00
Collection pot herbs, John Lyons, Minneapolis.....	First	3 00
Collection pot herbs, Shuman & Co., Minneapolis.....	Second	2 00

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 \$240 00

## DIVISION I—CULINARY AND DOMESTIC.

WYMAN ELLIOT, *Superintendent.*

W. P. HOVEY and T. W. SHUMAN, Judges.

## CLASS NO. 99.—SUGAR, SYRUP AND HONEY, BREAD AND DOMESTIC PANTRY STORES.

(17 entries.)

	Premiums.	Amount.
Fifty pounds amber cane sugar, Seth H. Kenney, Morristown, Minn.....	First	\$15 00
Fifty pounds amber cane sugar, Seth H. Kenney, Morristown, Second		10 00
Fifty pounds amber cane sugar, Seth H. Kenney, Morristown, Third		5 00
Five gallons amber cane syrup, Seth H. Kenney, Morristown, First		15 00
Five gallons amber cane syrup, Seth H. Kenney, Morristown, Second		10 00
Five gallons amber cane syrup, Seth H. Kenney, Morristown, Third		5 00
Ten pounds maple sugar, J. G. Bass, Hamline.....	First	\$5 00
Ten pounds maple sugar, Mrs. A. M. P. Whitter, Empire, Minn. Second		3 00
One gallon maple syrup, J. G. Bass, Hamline, Minn.....	First	5 00
One gallon maple syrup, Mrs. M. A. Pearce, Chowen, Minn... Second		3 00
Specimen honey in boxes, Francis Dick, Afton, Minn.....	First	5 00
Specimen honey in boxes, Rudolph Knapheide, St. Paul.....	Second	3 00
Specimen extracted honey, O. H. Bradbury, Afton, Minn.....	First	3 00
Specimen bee hive, Francis Dick, Afton.....	Silver Medal	
		<u>\$87 00</u>

## CLASS NO. 100.—BREAD AND CAKE OF DOMESTIC MANUFACTURE..

(With Mode of Manufacture.)

(73 entries.)

Loaf white bread, Mrs. Lorenzo Hoyt, St. Paul .....	First	\$2 00
Loaf white bread, Mrs. Gaylord Sexton, Faribault.....	Second	1 00
Loaf graham bread, Miss Julia Lyons, Minneapolis.....	First	2 00
Loaf graham bread, Mrs. Lorenzo Hoyt, St. Paul.....	Second	1 00
Loaf Boston brown bread, Miss C. L. Smith, Minneapolis....	First	2 00
Loaf Boston brown bread, Miss Julia Lyons, Minneapolis ....	Second	1 00
Twelve breakfast rolls, Miss E. O. Gibbs, St. Anthony Park..	First	2 00
Twelve breakfast rolls, Miss Julia Lyons, Minneapolis.....	Second	1 00
Sponge cake, Mrs. T. N. Porter, Rochester, Minn.....	First	2 00
Sponge cake, Miss Ray V. Hoyt, St. Paul.....	Second	1 00
Pound cake, Miss Julia Lyons, Minneapolis.....	First	2 00
Pound cake, Mrs. T. N. Porter, Rochester, Minn.....	Second	1 00
Silver cake, Mrs. D. L. Kingsbury, Merriam Park, Minn.....	First	2 00
Silver cake, Miss Olive Hazzard, Hamline, Minn.....	Second	1 00
Gold cake, Miss Olive Hazzard, Hamline, Minn.....	First	2 00
Gold cake, Miss Margaret Hoyt, St. Paul.....	Second	1 00



	Premiums.	Amount.
Jelly cake, Mrs. D. L. Kingsbury, Merriam Park, Minn. ....	First	\$2 00
Jelly cake, Mrs. F. G. Sterritt, Merriam Park, Minn.....	Second	1 00
Custard cake, Miss Ray V. Hoyt, St. Paul, Minn.....	First	2 00
Custard cake, Miss Julia Lyons, Minneapolis.....	Second	1 00
Fruit cake, Miss Julia Lyons, Minneapolis.....	First	2 00
Fruit cake, Mrs. C. L. Smith, Minneapolis.....	Second	1 00
Chocolate cake, Mrs. F. G. Sterrett, Merriam Park, Minn....	First	2 00
Chocolate cake, Miss Margerite Hoyt, St. Paul.....	Second	1 00
Delicate cake, Miss E. O. Gibbs, St. Anthony Park.....	First	2 00
Delicate cake, Miss Julia Lyons, Minneapolis.....	Second	1 00
Ginger bread, Mrs. D. L. Kingsbury, St. Paul.....	First	2 00

*Special premium by the St. Paul Roller Mill Co.*

Loaf bread from Orange Blossom flour, Miss Ray V. Hoyt, St. Paul.....	5 00
Display bread, gems, etc., from Orange Blossom flour, Mrs. D. L. Kingsbury, St. Paul, Minn.....	5 00
	<hr/> \$51 00

CLASS No. 101.—DOMESTIC CANNED GOODS AND JELLIES.

(191 entries.)

Canned strawberries, Mrs. Gaylord Sexton, Faribault.....	First	\$2 00
Canned strawberries, Mrs. M. A. Pearce, Chowen.....	Second	1 00
Canned raspberries, Mrs. Gaylord Sexton, Faribault.....	First	2 00
Canned raspberries, Mrs. D. L. Kingsbury, Merriam Park....	Second	1 00
Canned blackberries, Miss Julia Lyons, Minneapolis .....	First	2 00
Canned blackberries, Mrs. M. A. Pearce, Chowen.....	Second	1 00
Canned plums, Mrs. D. L. Kingsbury, Merriam Park.....	First	2 00
Canned plums, Miss Julia Lyons, Minneapolis.....	Second	1 00
Canned tomatoes, Mrs. Gaylord Sexton, Faribault.....	First	2 00
Canned tomatoes, Mrs. D. L. Kingsbury, Merriam Park .....	Second	1 00
Canned crab apples, Mrs. D. L. Kingsbury, Merriam Park....	First	2 00
Canned crab apples, Mrs. Gaylord Sexton, Faribault.....	Second	1 00
Canned citrons, Miss Julia Lyons, Minneapolis.....	First	2 00
Canned citrons, Mrs. Gaylord Sexton, Faribault.....	Second	1 00
Canned currants, Mrs. Gaylord Sexton, Faribault.....	First	2 00
Canned currants, Mrs. M. A. Pearce, Chowen .....	Second	1 00
Canned gooseberries, Miss Julia Lyons, Minneapolis.....	First	2 00
Canned gooseberries, Mrs. Gaylord Sexton, Faribault.....	Second	1 00
Canned grapes, Miss Julia Lyons, Minneapolis.....	First	2 00
Canned grapes, Mrs. Gaylord Sexton, Faribault.....	Second	1 00
Strawberry jelly, Mrs. C. L. Smith, Minneapolis.....	First	2 00
Strawberry jelly, Mrs. Gaylord Sexton, Faribault.....	Second	1 00
Raspberry jelly, Mrs. M. Flegle, Minneapolis ....	First	2 00
Raspberry jelly, Belle Barton, Excelsior .....	Second	1 00
Blackberry jelly, Miss Julia Lyons, Minneapolis.....	First	2 00
Blackberry jelly, Mrs. D. L. Kingsbury, Merriam Park.....	Second	1 00
Plum jelly, Miss Julia Lyons, Minneapolis .....	First	2 00



	Premiums.	Amount.
Plum jelly, Mrs. Gaylord Sexton, Faribault.....	Second	\$1 00
Apple jelly, Miss Julia Lyons, Minneapolis.....	Second	1 00
Quince jelly, Miss Julia Lyons, Minneapolis.....	First	2 00
Quince jelly, Mrs. Gaylord Sexton, Fairbault ..	Second	1 00
Currant jelly, Miss Julia Lyons, Minneapolis.....	First	2 00
Currant jelly, Mrs. M. Flegle, Minneapolis.....	Second	1 00
Gooseberry jelly, Mrs. Gaylord Sexton, Faribault.....	First	2 00
Gooseberry jelly, Miss Julia Lyons, Minneapolis.....	Second	1 00
Apple butter, Mrs. T. N. Porter, Rochester.....	First	2 00
Apple butter, Mrs. C. L. Smith, Minneapolis.....	Second	1 00
Plum butter, Miss Julia Lyons, Minneapolis.....	First	2 00
Plum butter, Grace L. Smith, Minneapolis.....	Second	1 00
Grape butter, Grace L. Smith, Minneapolis.....	First	2 00
Grape butter, Miss Julia Lyons, Minneapolis.....	Second	1 00
Strawberry jam, Grace L. Smith, Minneapolis.....	First	2 00
Strawberry jam, Mrs. D. L. Kingsbury, Merriam Park.....	Second	1 00
Raspberry jam, Mrs. Gaylord Sexton, Faribault.....	First	2 00
Raspberry jam, Mrs. T. N. Porter, Rochester.....	Second	1 00
Blackberry jam, Mrs. M. A. Pearce, Chowen.....	First	2 00
Blackberry jam, Mrs. D. L. Kingsbury, Merriam Park.....	Second	1 00
Currant jam, Mrs. C. L. Smith, Minneapolis .....	First	2 00
Currant jam, Miss Julia Lyons, Minneapolis.....	Second	1 00
Gooseberry jam, Mrs. Gaylord Sexton, Faribault.....	First	2 00
Gooseberry jam, Bell Barton, Excelsior.....	Second	1 00
		<hr/>
		\$76 00

## CLASS No. 102.

(79 entries.)

Cucumber pickles, Grace L. Smith, Minneapolis.....	First	\$2 00
Cucumber pickles, Mrs. D. L. Kingsbury, Merriam Park.....	Second	1 00
Cauliflower pickles, Grace L. Smith, Minneapolis.....	First	2 00
Cauliflower pickles, Miss Julia Lyons, Minneapolis.....	Second	1 00
Plum pickles, Mrs. D. L. Kingsbury, Merriam Park.....	First	2 00
Plum pickles, Miss Julia Lyons, Minneapolis.....	Second	1 00
Onion pickles, Miss Julia Lyons, Minneapolis.....	First	2 00
Onion pickles, Mrs. Mary Litzen, Minneapolis.....	Second	1 00
Tomato pickles, Grace L. Smith, Minneapolis.....	First	2 00
Tomato pickles, Mrs. C. L. Smith, Minneapolis.....	Second	1 00
Sweet pickles, Mrs. D. L. Kingsbury, Merriam Park.....	First	2 00
Sweet pickles, Mrs. Flegle, Minneapolis.....	Second	1 00
Mixed pickles, Mrs. Mary Litzen, Minneapolis.....	First	2 00
Mixed pickles, Miss Julia Lyons, Minneapolis.....	Second	1 00
Piccadilli, Mrs. Gaylord Sexton, Faribault, Minn.....	First	2 00
Piccadilli, Miss Julia Lyons, Minneapolis.....	Second	1 00
Tomato catsup, Mrs. M. Fleg'e, Minneapolis.....	First	2 00
Tomato catsup, Mrs. Gaylord Sexton, Faribault, Minn.....	Second	1 00
Spiced apples, Grace L. Smith, Minneapolis.....	First	2 00
Spiced apples, Miss Julia Lyons, Minneapolis.....	Second	1 00
Spiced plums, Miss Julia Lyons, Minneapolis.....	First	2 00

	Premiums.	Amount.
Spiced plums, Mrs. T. N. Porter, Rochester, Minn.....	Second	\$1 00
Three bottles home made vinegar, Mrs. Gaylord Sexton, Faribault, Minn.....	First	2 00
Three bottles home made vinegar, Mrs. A. M. P. Whittier, Empire City, Minn.....	Second	1 00
Three bottles apple cider vinegar, Mrs. Gaylord Sexton, Faribault, Minn.....	First	1 00
Three bottles apple cider vinegar, J. S. Harris, Minneapolis....	Second	1 00
Three bottles crab apple cider vinegar, C. B. Wilkinson, Owatonna, Minn.....	First	2 00
Three bottles maple vinegar, Ida H. Kelly, Farmington, Minn.	First	2 00
Three bottles maple vinegar, Mrs. Gaylord Sexton, Faribault, Minn.....	Second	1 00
Three bottles grape wine vinegar, Mrs. Gaylord Sexton, Faribault, Minn.....	First	2 00
		<hr/> \$46 00

## CLASS No. 103.—SWEEPSTAKES.

(4 entries.)

Display of bread, cake, jellies, jams and pickles, by young ladies under eighteen years—

Maavie F. Watson, Moorhead, Minn.....	First	\$20 00
Lizzie V. Smith, Minneapolis.....	Second	15 00
Grace L. Smith, Minneapolis.....	Third	10 00
Martha Lyons, Minneapolis.....	Fourth	5 00
		<hr/> \$50 00

## DIVISION K.—GRAIN, FLOUR, MEAL, SEEDS.

PROF. EDWARD D. PORTER, *Superintendent.*

D. D. BUNN, Welcome, J. F. GILMORE, Richfield,  
F. A. COLE, Red Wing, Judges.

## CLASS No. 104.

(44 entries.)

	Premiums.	Amount.
Exhibit grains and grass seeds, Shuman & Co., Minneapolis....	First	\$20 00
Exhibit of garden seeds, Shuman & Co., Minneapolis.....	First	20 00
Bushel winter wheat, Francis Dick, Afton, Minn.....	First	10 00
Bushel winter wheat, Shuman & Co., Minneapolis.....	Second	5 00
Bushel fife wheat, Shuman & Co., Minneapolis.....	First	10 00
Bushel spring wheat, Shuman & Co., Minneapolis.....	First	10 00
Bushel rye, Francis Dick, Afton, Minn.....	First	5 00
Bushel rye, Shuman & Co., Minneapolis.....	Second	3 00

	Premiums.	Amount.
Bushel white oats, Shuman & Co., Minneapolis.....	First	\$5 00
Bushel white oats, Francis Dick, Afton, Minn.....	Second	3 00
Bushel barley, bright, Shuman & Co., Minneapolis.....	First	5 00
Bushel barley, bright, Francis Dick, Afton, Minn.....	Second	3 00
Twenty-five ears yellow dent corn, Francis Dick, Afton, Minn	First	5 00
Twenty-five ears yellow dent corn, Shuman & Co., Minne- apolis.....	Second	3 00
Twenty-five ears white dent corn, Shuman & Co., Minne- apolis.....	First	5 00
Twenty-five ears yellow flint corn, C. G. Pride, Janesville, Minn.....	First	5 00
Twenty-five ears white flint corn, C. G. Pride, Janesville, Minn.....	First	3 00
Specimen broom corn, Shuman & Co., Minneapolis.....	First	5 00
Five pound specimen hops, Shuman & Co., Minneapolis.....	First	5 00
Peck clover seed, Shuman & Co., Minneapolis.....	First	5 00
Peck timothy seed, Shuman & Co., Minneapolis.....	First	3 00
Bushel buckwheat, Shuman & Co., Minneapolis.....	First	3 00
Bushel field peas, Shuman & Co., Minneapolis.....	First	3 00
Peck flax seed, Shuman & Co., Minneapolis.....	First	3 00
Barrel flour from Minnesota spring wheat, Empire Mill Co., New Ulm, Minn.....		Diploma

## RECAPITULATION OF ENTRIES AND AWARDS.

	No. of Entries.	No. of Premiums.	Amounts of Premiums and Awards.
Division A, horses and mules, 20 classes.....	391	148	\$1,887.00
Division B, cattle, 21 classes.....	665	236	4,793.50
Division C, sheep, 6 classes.....	261	63	569.00
Division C, swine, 5 classes.....	106	37	434.00
Division C, poultry, 4 classes.....	357	150	349.00
Division D, dairy products, 13 classes.....	159	56	893.25
Division E, manufactured goods, 5 classes.....	442	187	410.00
Division G, fruits and flowers, 7 classes.....	425	225	814.00
Division H, vegetables, 1 class.....	320	140	298.00
Division I, culinary and domestic, 5 classes....	364	128	310.00
Division K, grain, flour, seeds, etc., 1 class.....	44	25	147.00
			\$10,904.75

**EXHIBIT A.**  
**PREMIUMS AND AWARDS.**

Order No.	PAYEE.	Amount.
	Pay roll of premiums and awards for 1888.....	\$10,868.74
2616	John Bradford, Big Lake, Minn., 1887.....	25.00
2617	Leonard Johnson, Northfield, Minn., 1887.....	75.00
2618	De Lancey & De Lancey, Northfield, 1887.....	5.00
2619	J. W. Morse & Son, Verona, Wis., 1887.....	14.00
2620	Jacob Grasse, Rochester, Minn., 1887.....	20.00
2621	F. A. Squires, Blue Earth City, 1887.....	19.00
2622	J. N. Stubbs, Long Lake, Minn., 1887.....	3.00
2623	H. E. Locy, Maple Ridge, 1887.....	20.00
2625	Meyers & Carpenter, silver cup., 1887.....	55.00
2632	Meyers & Carpenter, medals, 1887.....	50.43
		<hr/> \$11,155.17

## EXHIBIT B.

## RACE PURSES.

Order No.	PAYEE.	Year.	Vouch'r No.	Total Winnings.	Less Entrance Due.	Balance P'd by Order.
2627	Isaac Staples.....	1887	.....	\$60.00	.....	\$60.00
2638	Budd Doble.....	1887	42	300.00	.....	300.00
13	H. R. Gardner.....	1887	42	25.00	.....	25.00
35	R. M. Dodd.....	1888	63	110.00	.....	110.00
36	G. T. Kintz.....	1888	64	90.00	.....	90.00
37	G. W. West.....	1888	65	300.00	.....	300.00
38	G. C. Loomis.....	1888	66	150.00	.....	150.00
40	P. Garrit.....	1888	68	250.00	.....	250.00
41	Dell Barker.....	1888	69	160.00	.....	160.00
42	H. Kelley.....	1888	70	450.00	\$60.00	390.00
43	Chas. E. Smith.....	1888	71	90.00	.....	90.00
44	C. M. Wilson.....	1888	72	1,000.00	100.00	900.00
45	W. J. Wadsworth.....	1888	73	70.00	.....	70.00
46	Geo. C. Raymond.....	1888	74	100.00	.....	100.00
47	Chas. P. Grove.....	1888	75	37.50	.....	37.50
49	O. J. Libby.....	1888	76	250.00	.....	250.00
53	Fred B. Close.....	1888	81	100.00	.....	100.00
54	C. F. Benson.....	1888	81	100.00	.....	100.00
55	C. T. Burnside.....	1888	81	300.00	.....	300.00
56	Geo. W. Farrier.....	1888	81	150.00	.....	150.00
59	C. M. Clough.....	1888	81	300.00	.....	300.00
60	F. O. Avery.....	1888	81	30.00	.....	30.00
61	O. H. Rogers.....	1888	81	250.00	.....	250.00
63	John Dowd.....	1888	81	100.00	.....	190.00
64	J. E. Cushing.....	1888	81	160.00	.....	160.00
65	Ed. Richardson.....	1888	81	300.00	.....	300.00
72	C. B. Dickens.....	1888	81	150.00	.....	150.00
76	Geo. W. Spear.....	1888	81	150.00	.....	150.00
79	John Bradford.....	1888	81	50.00	.....	50.00
81	A. C. Bruce.....	1888	81	500.00	.....	500.00
83	Luke Keef.....	1888	81	30.00	.....	30.00
88	E. Laird.....	1888	81	55.00	.....	55.00
125	W. L. McGrath.....	1888	81	37.50	.....	37.50
127	F. A. Seymour.....	1888	81	62.50	.....	62.50
128	A. M. Waufle.....	1888	81	23.75	.....	23.75
131	J. H. Burwell.....	1888	81	125.00	.....	125.00
132	R. F. Jones.....	1888	81	40.00	.....	40.00
134	Wm. H. Gay.....	1888	81	62.50	.....	62.50
135	Geo. W. Sherwood.....	1888	81	64.25	.....	64.25
136	E. M. Richardson.....	1888	81	70.00	.....	70.00
Totals .....		.....	.....	\$6,663.00	\$160.00	\$6,503.00



## EXHIBIT C.

## ENTRANCE MONEY REFUNDED.

Order No	PAYEE.	Voucher No.	Amount.
53	Fred B. Close.....	81	\$10.00
57	Ed. Stitt.....	81	60.00
58	Geo. W. Graves.....	81	100.00
62	P. Devereux.....	81	100.00
66	J. Cushing.....	81	20.00
			\$290.00

## EXHIBIT D.

## SPECIAL ATTRACTIONS.

Order No.	PAYEE.	Voucher No.	Amount.
73	Hunt & Price, balloon ascension attraction .....	82	\$500.00
561	National Sham Battle Ass'n, sham battle, G. A. R..	495	6,918.05
.....	National Sham Battle Ass'n, sham battle, G. A. R..	.....	45.00
563	W. S. Morton, base ball attraction.....	497	100.00
596	Geo. Seibert, Siebert and Danz, bands.....	530	1,000.00
			\$8,563.05

## EXHIBIT E.

## NEWSPAPER ADVERTISING.

Order No.	PAYEE.	Voucher No.	Amount.
373	Pioneer Press Co.....		\$370.66
374	Globe Publishing Co.....		340.80
375	St. Paul Dispatch.....		204.60
376	Daily News.....		138.80
377	Minneapolis Tribune.....		264.45
378	Argyle Banner.....		5.00
379	Enterprise, Albert Lea.....		7.00
380	Ada Index.....		5.00
381	Austin Democrat.....		6.00
382	Ashby Farmer.....		7.00
383	Aitkin Age.....		6.00
384	Albert Lea Standard.....		7.00
385	Alexandria News.....		6.00
386	Anoka Union.....		7.00
387	Anoka Herald.....		6.00
388	Ada Herald.....		3.00
389	Belle Plaine Herald.....		6.00
390	Balaton Journal.....		6.00
391	Benson Monitor.....		6.00
392	Benson Times.....		7.00
393	Beaver Creek Graphic.....		5.00
394	Brainerd Tribune.....		7.00
395	Breckenridge Mercury.....		6.00
396	Brainerd Dispatch.....		6.00
397	Beaver Falls Times.....		6.00
398	Brainerd Journal.....		7.00
399	Breckenridge Gazette.....		6.00
400	Beaver Valley Interstate Tribune.....		5.00
401	Brownsville News.....		5.00
402	Caledonia Argus.....		4.00
403	Cloquet Industrial Vidette.....		4.00
404	Currie Pioneer.....		4.00
405	Crookston Journal.....		6.00
406	Cokato Observer.....		5.00
407	Chatfield Democrat.....		6.00
408	Cambridge Press.....		7.00
409	Canby News.....		5.00
410	Preston Times.....		6.00
411	Dodge Centre Times.....		4.00
412	Dodge Centre Record.....		6.00
413	Delavan Herald.....		5.00
414	Delano Eagle.....		5.00
415	Dawson Sentinel.....		6.00
416	Detroit City Record.....		5.00
417	Duluth Democrat.....		9.00
418	East Grand Forks Courier.....		3.00
419	Elbow Lake Herald.....		5.00
420	Evansville Enterprise.....		5.06
421	Elk River Star News.....		6.00
422	Ellsworth News.....		5.00
423	Fairmont News.....		7.00
424	Fairhaven Circular.....		4.00

EXHIBIT E.—*Continued.*

Order No.	PAYEE.	Voucher No.	Amount.
425	Farmington Tribune.....		\$7.00
426	Fergus Falls Ugeblad.....		5.00
427	Faribault Republican.....		7.00
428	Greenwood Central Minnesotian.....		5.00
429	Granite Falls Tribune.....		6.00
430	Gaylord Hub.....		4.00
431	Grand Meadow Record.....		4.00
432	Graceville Transcript.....		5.00
433	Glencoe Enterprise.....		6.00
434	Glyndon Red River Valley News.....		5.00
435	Hokah Chief.....		4.00
436	Houston Signal.....		5.00
437	Henderson Independent.....		6.00
438	Herón Lake News.....		5.00
439	Hastings Gazette.....		6.00
440	Hokah Sun.....		5.00
441	Hutchinson Leader.....		5.00
442	Granite Falls Journal.....		6.00
443	Janesville Argus.....		4.00
444	Jackson Republic.....		6.00
445	Kasson Republican.....		6.00
446	Lake Benton News.....		3 00
447	Litchfield News Ledger.....		6.00
448	Lainsborough Journal.....		6.00
449	Lake City Graphic Sentinel.....		6.00
450	Litchfield Review.....		5.00
451	Lac qui Parle Independent.....		6.00
452	Le Roy Independent.....		5.00
453	Le Sueur News.....		6.00
454	Litchfield Independent.....		6.00
455	Little Falls Democrat.....		6.00
456	Luverne Herald.....		6.00
457	Lake Park Record.....		5.00
458	Mankato Der Minnesota Beobachter.....		5.00
459	Morris Tribune.....		7.00
460	Mankato Register.....		6.00
461	Mankato Free Press.....		7.00
462	Mankato Review.....		6.00
463	Moorhead News.....		7.00
464	Morris Sun.....		6.00
465	Mabel Enterprise.....		5.00
466	Morton Enterprise.....		5.00
467	Madison Press.....		6.00
468	Mora Times.....		6.00
469	Motley Register.....		5.00
470	Mankato Democrat.....		7.00
471	Northfield News.....		7.00
472	South St. Paul Sentinel.....		7.00
473	New Richland North Star.....		6.00
474	New Ulm Review.....		5.00
475	Otter Tail County Farmer.....		7.00
476	Ortonville Head Light.....		5.00
477	Ortonville Herald Star.....		5.00
478	Owatonna Journal and Herald.....		7.00
479	Painesville News.....		3.00

EXHIBIT E.—*Continued.*

Order No.	PAYEE.	Voucher No.	Amount.
480	Painesville Press.....		\$3.00
481	Princetown Union.....		7.00
482	Pine City Pioneer.....		5.00
483	Plain View News.....		6.00
484	Pine Island Journal.....		5.00
485	Perham Bulletin.....		6.00
486	Pipestone Star.....		6.00
487	Preston Republican.....		6.00
488	Rochester Herald.....		4.00
489	Rushford Star.....		5.00
490	Redwood Falls Reveille.....		6.00
491	Redwood Falls Gazette.....		5.00
492	Red Wing Argus.....		7.00
493	Rochester Democrat.....		7.00
494	Red Lake Falls News.....		5.00
495	Red Wing Advance Star.....		11.00
496	St. Charles Times.....		5.00
497	Springfield Advance.....		4.00
498	Stillwater Post.....		6.00
499	St. Peter Herald.....		6.00
500	Shakopee Courier.....		6.00
501	Slayton Gazette.....		6.00
502	Shakopee Post.....		6.50
503	St. James Journal.....		6.00
504	St. Cloud Times.....		6.00
505	Sauk Rapids Free Press.....		5.00
506	Shakopee Argus.....		6.00
507	St. Charles Union.....		6.00
508	St. Cloud Journal Press.....		7.00
509	St. Hilaire Spectator.....		5.00
510	Sleepy Eye Herald.....		7.00
511	Spring Valley Vidette.....		7.00
512	Sherburne Advance.....		4.00
513	Tyler Journal.....		6.00
514	Taylors Falls Journal.....		6.00
515	Tracy Trumpet.....		6.00
516	Verndale Journal.....		6.00
517	Winona Herald.....		7.00
518	Waconia News.....		5.00
519	Warren Register.....		4.00
520	Winona Adler.....		5.00
521	Wadena Pioneer.....		6.00
522	Waseca Herald.....		7.00
523	Wadena Tribune.....		6.00
524	White Bear Lake Breeze.....		5.00
525	Waseca Radical.....		6.00
526	Windom Citizen.....		5.00
527	Waterville Advance.....		6.00
528	Windom Reporter.....		5.00
529	Winnebago City Press-News.....		7.00
530	Worthington Advance.....		7.00
531	Winthrop News.....		3.00
532	Zumbrota News.....		6.00
574	Horseman.....	508	95.00

EXHIBIT E.—*Continued.*

Order No.	PAYEE.	Voucher No.	Amount.
600	Dunton's Spirit of the Turf.....	543	\$60.00
632	Evening Journal.....	559	159.85
633	Star Printing Co.....	560	110.00
634	Svenska Folkets Tidning.....	561	18.00
635	C. A. Dubois.....	562	70.00
636	Daily Railroad and Hotel News.....	563	75.00
637	Northwestern Lumberman.....	564	20.00
638	Brewers Gazette.....	565	20.00
639	Farm, Stock and Home.....	566	50.40
640	Volkszeitung.....	567	50.00
641	Grocer, St. Paul.....	568	10.00
642	Der Wanderer.....	569	30.00
643	Commercial Bulliten.....	570	10.00
644	Anoka Union.....	571	12.00
645	Hemlandet.....	572	10.00
646	Northwestern Presbyterian.....	573	10.00
647	Exposition Programme.....	574	50.00
648	Free Baptist.....	575	7.50
649	Farm Implements and Hardware.....	576	10.00
650	Journal of Commerce.....	577	20.00
651	Labor Union.....	578	8.00
652	Irish Standard.....	579	8.00
653	Western Appeal.....	580	5.00
654	Opera House Programme.....	581	25.00
655	Methodist Herald.....	582	10.00
656	Skaffaren.....	583	8.00
657	North West Prohibitionist.....	584	7.00
658	The Herald.....	585	10.00
659	Northwestern Chronicle.....	586	15.00
660	Minnehaha Trotting Programme.....	587	35.00
668	Fergus Falls Printing Co.....	590	20.00
670	North West Agriculturist.....	592	28.00
684	Skandinaven.....	605	100.00
	Total.....		\$3,375.56



## EXHIBIT F.

## FAIR PRINTING AND STATIONERY.

Order No.	PAYEE.	Voucher No.	Amount.
2607	Brown, Treacy & Co., printing (old bill)....	14	\$14.45
2605	Joel P. Heatwole, printing, 1887.....	32	4.25
2606	Harrison & Smith, printing .....	33	2.68
568	Butt & Farnham, stationery.....	502	8.10
569	Smith & Smith, printing.....	503	19.50
570	Russell & Morgan, fair printing.....	504	112.50
571	Cossack & Co., fair printing.....	505	215.50
572	Baker, Collins & Co., fair printing.....	506	3.50
573	J. M. Jones Stationery and Printing Co., tickets .....	507	168.50
575	Western Bank Note Co., diplomas.....	509	450.00
624	F. J. Wilcox, stationery.....	551	2.50
667	Geesaman & Murphy, printing .....	589	93.00
673	L. N. Scott, fair printing.....	595	25.00
686	Pioneer Press Co., fair printing.....	606	825.25
679	Brown, Treacy & Co., printing stationery...	599	215.10
579	Northwestern Stamp Works, stamps.....	513	2.25
	Total... ..	.....	\$2,162.08

## EXHIBIT G.

## BILL POSTING, ETC.

Voucher No.	PAYEE.	Voucher No.	Amount.
673	L. N. Scott, pay roll bill posters.....	595	\$1,604.90

## EXHIBIT H.

## OFFICERS, SUPERINTENDENTS AND ASSISTANTS.

Order No.	PAYEE.	Voucher.	Amount.
2604	Henry Feig, auditor's account, 1887 accts..	12	\$44.80
2605	Otto E. Naegle, auditor's account, 1887 accts.	11	37.50
2606	A. G. Bradford, auditor's account, 1887 accts..	10	26.00
2613	K. N. Garteau, assistant secy., acct. 1886..	10	30.00
2624	John Cooper, manager, 1886.....		250.00
2626	John Cooper, manager, 1887.....	20	200.00
30	H. E. Hoard, supt. and secy. to March, 1888.	37	416.66
31	H. R. Denny, secretary and superintendent	59	1,041.60
51	C. A. Giddings, assistant superintendent..	78	48.00
77	A. Long, assistant superintendent.....	78	27.00
78	L. H. Prosser, manager.....	78	150.00
80	N. H. Kattman, assistant superintendent..	78	36.00
82	Wm. Ahern, assistant superintendent.....	78	27.00
84	M. O. Tousley, assistant superintendent....	78	9.00
85	A. P. Jones, assistant superintendent.....	78	18.00
86	J. H. Makspiell, assistant superintendent..	78	27.00
87	H. O. Poor, assistant superintendent.....	78	30.00
89	John Gates, assistant superintendent.....	78	18.00
90	John Byers, assistant superintendent.....	78	60.00
92	Geo. M. Tousley, assistant superintendent.	78	100.00
103	Scera Powers, assistant superintendent....	78	28.50
104	Geo. L. Trott, assistant superintendent....	78	43.50
106	L. O. Normandier, assistant superintendent.	78	35.75
107	Wm. Richter, assistant superintendent.....	78	25.50
108	August Schmidt, assistant superintendent..	78	15.00
109	W. W. Folsom, assistant superintendent...	78	63.00
111	Joe. Hemenway, assistant superintendent..	78	18.00
120	Eliza Mayo, assistant superintendent.....	78	30.00
121	Miss Kate Mayo, assistant superintendent.	78	30.00
122	Miss Alex Dougan, assistants uperintendent	78	30.00
123	Miss L. Pearce, assistant superintendent...	78	27.00
124	E. F. Bolton, assistant superintendent.....	78	38.00
130	R. R. Russell, assistant superintendent.....	78	45.00
544	W. H. Wood, assistant superintendent.....	78	15.00
545	Ole N. Nelson, assistant superintendent.....	78	25.00
549	Mrs. L. P. Walsingham, assistant supt.....	78	12.00
550	A. S. Brisbin, assistant superintendent.....	78	75.00
551	W. J. Taylor, assistant superintendent.....	78	64.50
552	E. G. Creiman, assistant superintendent ...	78	55.50
553	H. Sharing, assistant superintendent.....	78	61.50
554	Miss Minnie Sharing, assistant supt.....	78	12.00
555	Vincent De Gernon, supt. art gallery.....	78	150.00
556	Capt Arthur Egan, assistant superintendent	78	115.00
557	Clarke Chambers, assistant superintendent.	78	6.75
558	Andrew Brown, assistant superintendent...	78	45.00
562	Sam Partridge, assistant secretary.....	78	250.60
597	William Rodgers, assistant secretary.....	78	68.00
601	F. M. Wood, auctioneer.....	78	119.30
616	F. W. Terry, assistant superintendent.....	78	96.00
617	Geo. W. Taylor, assistant secretary.....	78	105.00
618	John E. Imrey, assistant secretary.....	78	30.00
619	Tom Scott, assistant superintendent, dept.	78	30.00
661	W. F. Cross, superintendent grounds.....	78	750.00

EXHIBIT H.—*Continued.*

Order No.	PAYEE.	Voucher.	Amount.
662	W. A. Gates, assistant superintendent, dept.	78	\$100.00
663	S. M. Emery, assistant superintendent, dept.	78	100.00
664	Dell Lowell, assistant superintendent, dept.	78	13.50
671	C. M. Schultz, superintendent printing, etc.	78	300.00
117	J. O. McConnell, assistant supt. gates.....	79	34.50
117	J. D. Mills, assistant superintendent gates.	79	25.00
118	D. R. Houlton, assistant supt. gates.....	79	18.00
687	E. E. Burk, assistant treasurer.....	78	30.00
687	G. H. Coon, assistant treasurer.....	78	25.00
687	W. C. Dilley, watchman at gates.....	78	28.00
			\$5,782.42

## EXHIBIT I.

## POLICE, JUDGES, TICKET SELLERS AND GATEKEEPERS.

Order No.	PAYEE.	Voucher.	Amount.
39-126	A. M. Lowell, marshall.....	80	\$50.00
39-126	Geo. A. Copeland, police.....	80	21.00
39-126	L. M. Barrie, police.....	80	21.00
39-126	J. F. Austin, police.....	80	36.00
39-126	Robert Broome, police.....	80	36.00
39-126	Henry Cormick, police.....	80	39.00
39-126	P. E. Campbell, police.....	80	21.00
39-126	Wm. Duren, police.....	80	21.00
39-126	Henry Eberhard, police.....	80	21.00
39-126	A. Frenette, police.....	80	21.00
39-126	Fred Hesse, police.....	80	36.00
39-126	John Hubert, police.....	80	18.00
39-126	Theo. Johnson, police.....	80	21.00
39-126	Peter Koch, police.....	80	24.00
39-126	Ed. Mullaney, police.....	80	27.00
39-126	Mars. Myland, police.....	80	9.00
39-126	Owen McKenna, police.....	80	24.00
39-126	Cassimer Miller, police.....	80	27.00
39-126	Louis Blomquist, police.....	80	9.00
39-126	John Basman, police.....	80	3.00
39-126	Ed. Newman, police.....	80	21.00
39-126	J. P. Newell, police.....	80	27.00
39-126	L. F. Palmer, police.....	80	24.00
39-126	J. Robertson, police.....	80	18.00
39-126	P. E. Raverty, police.....	80	21.00
39-126	Ch. Remholdesen, police.....	80	21.00
39-126	P. J. Stamm, police.....	80	27.00
39-126	John Sawes, police.....	80	24.00
39-126	Ph. Wemstock, police.....	80	27.00
39-126	Pat Cary, police.....	80	21.00
39-126	M. Shorn, police.....	80	24.00
39-126	E. F. Carney, police.....	80	18.00
39-126	M. Lyons, police.....	80	22.50
39-126	P. Conway, police.....	80	21.00
39-126	M. H. Shay, police.....	80	12.00
39-126	A. E. Sachse, detective.....	80	18.00
39-126	T. Keneely, detective.....	80	15.00
39-126	M. Daly, detective.....	80	15.00
39-126	Dan. Ahern, detective.....	80	15.00
39-126	Dan. O'Connor, detective.....	80	15.00
39-126	J. M. Watts, police.....	80	9.00
39-126	Pat. Powers, police.....	80	12.00
39-126	Robert Wentz, police.....	80	21.00
39-126	Chas. Gantzer, police.....	80	24.00
39-126	A. M. Lowell, balance marshall.....	80	100.00
52	M. T. Grattan, judge.....	78	150.00
67	Wm. H. Taft, judge.....	78	150.00
70	C. D. Giddings, judge.....	78	4.00
546	Mrs. W. P. Jewett, judge.....	78	9.00
547	Mrs. L. W. French, judge.....	78	9.00
548	Madge M. Dyke, judge.....	78	9.00
560	Col. W. M. Liggett, judge.....	78	30.00
598	L. Wallace, judge.....	78	11.87

EXHIBIT I.—*Continued.*

Order No.	PAYEE.	Voucher No.	Amount.
600	E. S. Cummings, judge.....	78	\$48.25
687	W. F. Sommerfield, ticket seller.....	78	60.00
687	Chas. Crary, ticket seller.....	78	26.00
687	L. D. McLean, ticket seller.....	78	24.00
687	F. L. Melvin, ticket seller.....	78	24.00
687	M. Carmichael, ticket seller.....	78	24.00
687	D. Libbison, ticket seller.....	78	22.00
687	W. L. Dunn, ticket seller.....	78	22.00
687	J. F. Wyman, ticket seller.....	78	18.00
687	W. C. Barnard, ticket seller.....	78	22.00
687	W. B. Thorne, ticket seller.....	78	14.00
687	T. L. Hays, ticket seller.....	78	4.00
687	G. L. Fuller, ticket seller.....	78	2.50
687	L. J. Fuller, ticket seller.....	78	2.50
687	C. F. Nickels, ticket seller.....	78	4.00
687	M. C. Skinner, ticket seller.....	78	18.00
687	E. A. Carroll, counting tickets.....	78	1.00
687	W. D. Moffitt, counting tickets.....	78	1.00
687	F. F. Farrar, counting tickets.....	78	1.50
687	S. V. Warren, counting tickets.....	78	1.50
	E. A. Montgomery, gatekeeper.....		19.00
	E. A. Carroll, gatekeeper.....		18.00
	Douglass, gatekeeper.....		15.00
	W. D. Moffitt, gatekeeper.....		15.00
	J. J. Hartig, gatekeeper.....		19.00
	F. A. Carroll, gatekeeper.....		15.00
	E. T. Teitsworth, gatekeeper.....		15.00
	P. R. Stowers, gatekeeper.....		15.00
	Ed. Phillips, gatekeeper.....		18.00
	C. Johnson, gatekeeper.....		18.00
	S. V. Warren, gatekeeper.....		18.00
	E. H. Ellsworth, gatekeeper.....		18.00
	A. M. Webster, gatekeeper.....		15.00
	N. R. Bell, gatekeeper.....		18.00
	H. A. Tiffany, gatekeeper.....		18.00
	John Marvin, gatekeeper.....		15.00
	Willis Chambers, gatekeeper.....		18.00
	Oscar Becker, gatekeeper.....		18.00
	D. A. Perkins, gatekeeper.....		18.00
	F. F. Farrar, gatekeeper.....		15.00
	Wm. Patterson, gatekeeper.....		18.00
	N. Getchell, gatekeeper.....		18.00
	John Rodgers, gatekeeper.....		18.00
	A. Bryant, gatekeeper.....		18.00
	E. Bryant, gatekeeper.....		18.00
	W. A. Trask, gatekeeper.....		18.00
	A. Nickerson, gatekeeper.....		18.00
	O. Buck, gatekeeper.....		18.00
	Wm. Cilly, gatekeeper.....		18.00
	Total.....		\$2,270.62



## EXHIBIT J.

## MATERIAL, LABOR AND BOARD ON ACCOUNT CURRENT EXPENSES.

Order No.	PAYEE.	Voucher.	Amount.
2630	Geo. Drew, (old account, 1887).....	21	\$42.20
2631	Geo. Drew, repairs.....	22	120.22
2633	D. W. Harper, hardware.....	24	11.60
2634	Brooks Brothers, lumber.....	25	160.86
2636	H. E. Hoard, paid men clearing snow.....	27	48.81
10	Brooks Bros., lumber.....	38	20.42
11	Strong-Hackett Hardware Co., hardware....	40	8.07
15	E. M. Newcomb, laborer.....	44	9.00
16	Mathew Cannon, laborer.....	45	16.50
17	David Wilson, laborer.....	46	6.75
20	Michael Shelstad, laborer.....	49	44.80
21	R. R. Russell, laborer.....	50	30.00
23	C. A. Schwartz, laborer.....	52	66.80
24	John J. Anderson, laborer.....	53	50.00
25	D. L. Billingsley, contract putting up hay..	54	239.64
27	John Keys, board of men.....	56	73.84
28	H. F. Sanders, board of men.....	57	50.00
29	W. H. Libbey, team putting up hay.....	58	11.75
34	James Bannister, white washing.....	62	43.00
48	W. P. Coweles, carpenter.....	77	10.62
50	John Hood, carpenter.....	77	9.37
68	A. L. Berggreen, laborer.....	77	16.35
69	Rudolph Hanson, laborer.....	77	11.25
71	Albert Hermann, laborer.....	77	43.65
74	H. F. Sanger, laborer.....	77	4.65
75	J. M. Lynn, laborer.....	77	5.55
93	Edward Lindig, teams, contract hauling manure.....	77	120.00
95	Ed Allen, laborer.....	77	31.35
96	August Carlson, laborer.....	77	20.00
99	Olivier Gilkey, laborer.....	77	19.50
100	W. H. Libbey, team.....	77	35.00
102	John Ryan, laborer.....	77	12.90
105	Chas. R. Cross, laborer.....	77	12.00
112	R. Wilkie, team.....	77	28.00
113	J. G. Hartig, team.....	77	15.00
115	Miles & Hale, electric bell repairs.....	78	18.00
116	Andrew Brown, team.....	77	31.50
119	Samuel Johnson, team.....	77	50.00
129	J. V. Wilson, team.....	77	11.00
133	C. T. Rogers, clerk race course.....	81	24.00
140	August Nelson, laborer.....	77	35.00
141	Daniel Anderson, laborer.....	77	35.00
142	James Larson, laborer.....	77	34.00
145	Michael Jansen, laborer.....	77	22.00
146	C. A. Swartz, laborer.....	77	92.75
147	John Keys, board of laborers.....	83	50.00
150	Peter Blumer, laborer.....	77	12.00
151	Edward Lindig, team.....	77	8.10

EXHIBIT J.—*Concluded.*

Order No.	PAYEE.	Voucher.	Amount.
152	Henry Sharing, laborer.....	77	\$16.13
154	Alfred Anderson, laborer.....	77	11.00
155	R. R. Russell, laborer.....	77	24.00
533	Benj. Morse, team.....	77	45.00
534	Magnus Peterson, laborer.....	77	20.00
535	Charles Erickson, laborer.....	77	8.75
536	W. H. Lafavor, team.....	77	33.60
537	James N. Linn, laborer.....	77	3.75
538	William De Gray, laborer.....	77	5.70
539	John Larson, laborer.....	77	32.25
540	Pat Quinlan, team.....	77	130.72
541	R. R. Russell, laborer.....	77	15.00
542	Geo. Hawley, laborer.....	77	4.35
543	James Spellman, laborer.....	77	8.70
559	B. J. Toland, laborer.....	77	6.75
564	Farwell, Ozmun, Kirke & Co., hardware ...	498	32.91
584	Adam Decker, hardware.....	518	7.27
592	Women's Christian Home, meals for police- men and firemen.....	526	18.00
593	Dayton's Bluff Dining Hall, meals for policemen and firemen.....	527	81.00
594	Daniel Allen (contract cleaning closets)....	528	50.00
595	Forrestall Bros., sprinkling.....	529	15.00
606	W. E. Coles & Son, painting.....	540	215.00
610	L. N. Scott, charge of amphitheatre.....	544	131.30
611	Wm. F. Cross, charge of races.....	545	88.50
612	John Keys, board of laborers.....	546	28.50
614	Frank Gunderman, laborer.....	77	46.50
615	W. H. Libby, team.....	77	8.75
620	Robinson & Cary, supplies, etc.....	548	130.30
626	Janney, Semple & Co., hardware.....	553	1.75
627	U. S. Wind and Engine Pump Co., supplies.	554	4.68
628	H. P. Rugg & Co., supplies.....	555	2.86
665	Jacob Hanks, laborer.....	77	12.00
677	Wm. Rogers & Co., repairs to machinery ...	597	328.51
			<b>\$3,441.33</b>

## EXHIBIT K.

## POSTAGE, FREIGHT AND EXPRESS, ETC.

Order No.	PAYEE.	Voucher No.	Amount.
2615	Northwestern Telephone Exchange Co., telephone, 1887.....	.....	\$10.00
2	St. Paul, Minneapolis & Manitoba Railway Co., relief of buffaloes, 1887.....	29	31.25
4	American Express Co., express charges.....	31	3.80
8	H. E. Hoard, postage .....	35	25.34
9	Northwestern Telephone Exchange Co., telephone rent.....	36-39	50.00
576	Northwestern Telephone Exchange Co., telephone rent.....	510	50.00
578	H. R. Denny, postage.....	512	181.87
583	St. Paul, Minneapolis & Manitoba Railway Co., freight charges.....	517	6.00
630	H. E. Hoard, postage.....	557	15.18
673	L. N. Scott, express charges.....	595	30.55
678	Meyers & Hedian, drayage on paintings....	598	40.00
685	Kents Package Delivery, drayage on paintings.....	605	100.00
	Total.....	.....	\$543.99

## EXHIBIT L.

## INCIDENTAL EXPENSES.

Order No.	PAYEE.	Voucher No.	Amount.
2611	H. E. Hoard, sundries, 1887.....	15	\$149.43
2612	H. E. Conklin, forage, 1887.....	18	5.74
2628	Geo. D. Knox, special appropriation, 1887..	.....	500.00
2629	John F. Norrish, law expenses, 1887 .....	.....	20.00
2635	Lockwood, Allard & Co., forage.....	26	18.48
2637	Geo. D. Knox, special appropriation, 1887..	.....	250.00
1	Merchants Transfer Co., sprinkling, 1887....	28	6.00
3	T. W. Ingersoll, photographs, 1887.....	30	10.00
7	R. L. Polk & Co., directory.....	34	5.00
14	John Farrell, forage.....	43	15.00
22	Lockwood, Allard & Co., forage.....	51	42.82
32	C. L. Smith, evergreen trees for decorating.	60	100.00
567	S. L. Sheldon & Co., repairs to mower.....	501	11.35
581	American Trotting Association, annual dues and supplies .....	515	104.00
582	Northwestern Fuel Co., coal.....	516	130.50
586	Chester Oil Co., oil.....	520	4.75
589	Miles & Hale, electric bells, etc.....	523	10.00
603	S. S. Eaton, insurance on paintings.....	537	186.00
604	Sterrett Ice Co., ice.....	538	20.00
608	Vincent DeGernon, art expenses.....	542	17.50
622	Lockwood, Allard & Co., forage.....	549	95.95
625	J. Cavanaugh, sawdust.....	552	5.00
629	Blakemore & Angell, work in art gallery...	556	16.33
669	J. W. Perry & Co., stereo's., 1887.....	591	4.00
631	Lorenzo Hoyt, forage .....	558	8.43
682	T. Simon, brooms .....	602	15.00
683	J. M. Russell, repairs to flags.....	603	40.00
	Total .....	.....	\$1,791.28

## EXHIBIT M.

EXPENDITURES FOR CONTRACTS, AND MATERIAL, TOOLS, IM-  
PLEMENTS, FURNITURE, MACHINERY, ETC., ACCOUNT PERMA-  
NENT IMPROVEMENTS.

Order No.	PAYEE.	Voucher No.	Amount.
2609	Woodland Park Baptist Church, lumber (old account, 1887).....	5	\$7.50
2614	H. N. Lighton, improvement (old account, 1886).....	13	129.30
12	Dow Morrison, horse.....	41	165.00
565	Mast, Buford & Burwell Co., implements and machinery.....	499	100.40
566	Adam Decker, hardware.....	500	102.91
577	Price-Condit Fence Co., fencing.....	511	56.36
580	Janney, Semple & Co., hardware.....	514	3.39
585	Morris Iron and Steel Roofing Co., roof main building.....	519	491.13
587	A. E. Melgren, brass checks.....	521	24.00
588	Finch, Van Slyke & Co., blankets.....	522	43.75
590	John Mathies, pillows.....	524	7.00
591	Shickler & Wilson, cresting main building.	525	148.60
599	I. R. Jenkins, fire alarm system.....	533	175.00
605	Elmer & Marshall, painting main building.	539	71.22
607	J. W. Stevens, architect grand stand im- provements.....	541	100.00
623	L. P. Plummer Post, benches.....	550	10.00
672	G. J. Grant, improvements to grand stand..	594	997.82
677	William Rogers, machinery sheds and work rooms.....	597	400.00
680	D. W. Harper, hardware.....	600	80.55
681	Finch, Van Slyke & Co., material decora- tions main building.....	601	36.82
	Total.....		\$3,150.75



## EXHIBIT N.

## LABOR AND BOARD ON ACCOUNT OF PERMANENT IMPROVEMENTS.

Order No.	PAYEE.	Voucher.	Amount.
2603	Lefebvre & Des Lauriers, labor (old account 1887).....	4	\$17.70
2608	H. F. Sanders, board of men (old account 1887).....	3	11.00
2610	Wm. Crawford, labor (old account 1885)....	7	4.00
15	E. M. Newcomb, labor.....	44	9.00
18	Andrew Westlund, laborer.....	47	7.50
19	Harry Johnson, laborer.....	48	10.50
24	John J. Anderson, laborer.....	53	55.00
26	John J. Anderson, laborer.....	55	2.10
28	H. F. Sanders, board of laborers.....	57	28.82
33	O. M. Lilliquist, carpenter.....	61	86.50
69	Rudolph Hanson, laborer... ..	77	11.25
91	Jacobs Hanks, laborer.....	77	51.15
94	John Goody, carpenter.....	77	120.00
95	Ed. Allen, laborer.....	77	31.35
96	August Carlson, laborer.....	77	27.40
97	Geo. C. Allen, carpenter.....	77	31.25
98	August Hogberg, carpenter.....	77	122.50
101	Henry Vollmer, laborer.....	77	14.25
110	R. E. Olmstead, carpenter.....	77	1.25
113	J. G. Hartig, team.....	77	16.55
114	Halfdon Harrison, laborer.....	77	33.00
119	Samuel John, team.....	77	61.30
129	J. V. Wilson, team.....	77	11.75
143	August Nelson, laborer....	77	39.70
144	Daniel Anderson, laborer.....	77	38.95
142	James Larson, laborer.....	77	34.55
145	Michael Jansen, laborer .....	77	22.55
147	John Keys, board of laborers.....	83	45.34
148	Harry Johnson, carpenter.....	77	176.24
149	Andrew Harrison, carpenter.....	77	190.43
153	Geo. Gerlock <i>et al</i> , laborers .....	77	18.00
154	Alfred Anderson, laborer.....	77	11.25
539	John Larson, laborer.....	77	32.25
613	H. F. Sanders, board of laborers.....	547	48.50
665	Jacob Hanks, laborer.....	77	12.00
			\$1,434.88

## EXHIBIT O.

## BANK INDEBTEDNESS FOR WHICH ORDERS WERE ISSUED.

Order No.	PAYEE.	Voucher.	Amount.
.....	Note at Merchants National Band.....	.....	\$24, 500.00
.....	Interest to Merchants National Bank on above note.....	.....	1, 507.06
.....	Interest to Merchants National Bank on orders cashed.....	.....	5.13
			<u>\$26, 012.19</u>

## RECAPITULATION BY EXHIBITS.

Exhibit A—Premiums and awards.....	\$11,155 17
Exhibit B—Race purses .....	6,503 00
Exhibit C—Entrance money returned.....	290 00
Exhibit D—Special attractions.....	8,563 05
Exhibit E—Newspaper advertising .....	3,375 56
Exhibit F—Fair printing and stationery.....	2,162 08
Exhibit G—Bill posting .....	1,604 90
Exhibit H—Officers, superintendents and assistants.....	5,782 42
Exhibit I—Police, judges, ticket sellers and gate keepers.....	2,270 62
Exhibit J—Material, labor and board on account current expenses	3,441 33
Exhibit K—Postage, freight, express, etc.....	543 99
Exhibit L—Incidental expenses.....	1,791 28
Exhibit M—Contracts, material, implements, etc., permanent im- provements.....	3,150 75
Exhibit N—Labor and board on account permanent improvements	1,434 88
Exhibit O—Bank notes and interests.....	26,012 19
	<u>\$78,081 22</u>

## RACING DEPARTMENT.

F. C. PILLSBURY, *Superintendent.*

W. F. CROSS, *Superintendent of Tracks and Stables.*

C. F. ROGERS, *Clerk of the Course.*

M. T. GRATTAN, WM. H. TAFT, and FRED. C. PILLSBURY,  
*Judges.*

CLASS No. 1.—MINNESOTA BREEDERS' STAKE.—Purse \$95.

Trotted Sept. 10th ; half mile heats ; 4 entries ; entrance paid in \$60

W. L. McGrath, St. Paul, "Tipperary," first .....	\$47 50	
F. A. Sabin, Lake City, "Harry Blackwood," second.....	23 75	
Geo. W. Sherwood, St. Paul, "Jessica Wilkes," third.....	14 35	
		\$85 50

Time, 1:33½—1:34.

CLASS No. 2.—MINNESOTA BREEDERS' STAKE.—For three-year olds.—  
Purse, \$140.

Trotted Sept. 10th ; one mile heats, 2 in 3 ; 2 entries ; entrance paid, \$80.

E. M. Richardson, "Hamdellah Maid," first.....	\$70 00	
Geo. M. Sherwood, St. Paul, "Heiress," second.....	85 00	
		\$105 00

Time, 2:57½—2:51¾.

CLASS No. 3.—BREEDERS' MINNESOTA.—Four-year-olds.—Purse \$60.

Trotted Sept. 10th ; one mile heat, 3 in 5 ; 2 entries ; entrance paid in, \$60.

Luke Keif, Hutchinson, "Arlington," first.....	\$30 00	
G. W. Sherwood, "Romona," second.....	15 00	
		\$45 00

Time, 2:46¼—2:46½—2:44¼.

CLASS No. 4.—MINNESOTA BREEDERS' STAKE.—Stallions 2:40 class.—  
Purse, \$60.

Trotted Sept. 10th ; mile heats, 3 in 5 ; 1 entry ; entrance paid in, \$30.

F. C. Avery, Hutchinson "Motor," .....	\$30 00	
		\$30 00

Time, 2:51¼.

CLASS No. 5.—MINNESOTA BREEDERS' STAKE.—Pacers eligible to 2:40 class.  
—Purse, \$220.

Trotted Sept. 10th ; mile heats, 3 in 5 ; 4 entries ; entrance paid in, \$120.

R. M. Dodd, Northfield, "Colossus," first.....	\$110 00	
H. W. Wadsworth, Minneapolis, "Freemont," second.....	55 00	
		\$165 00

Time, 2:29¼—2:27¾—2:29¾.

## CLASS No. 6.—Three minute trotting.—Purse, \$1,000.

Trotted. Sept. 11th ; mile heats, 3 in 5 ; 6 entries ; entrance paid in, \$500.

Wilson & Stanley, Detroit, Mich, "Jim Fuller," first.....	\$500 00	
O. H. Rogers, Minneapolis, "Fugleman," second.....	250 00	
Geo. W. Speer, Minneapolis, "Star S," third.....	150 00	
Dell Barker, Greenwood, Mo., "Diamond," fourth.....	100 00	
		\$1,000
Time, 2:27 $\frac{1}{4}$ —2:28 $\frac{1}{4}$ —2:31 $\frac{1}{4}$ .		

## CLASS No. 7.—2:30 CLASS, PACING.—Purse, \$600.

Trotted Sept. 11th ; mile heat, 3 in 5 ; 7 entries ; entrance paid in, \$330.

G. W. West, Chicago, Ill., "Ned M.," first.....	\$300 00	
Geo. C. Loomis, Pipestone, "Highland Laddie," second....	150 00	
S. T. Kintz, Chicago, Ill., "Lottie K.," third.....	90 00	
		\$540 00
Time, 2:25 $\frac{3}{4}$ —2:24 $\frac{1}{4}$ —2:26 $\frac{1}{4}$ .		

## CLASS No. 8.—2:24 CLASS, TROTting.—Purse, \$600.

Trotted Sept. 11th ; one mile heat, 3 in 5 ; 7 entries ; entrance paid in \$270.

C. M. Clough, Rochester, "Silas Wright," first.....	\$300 00	
H. L. and F. D. Stout, Dubuque, Iowa, "Alpha," second..	150 00	
A. J. Libby, Mineapolis, "Senator," third.....	90 00	
		\$540 00
Time, 2:24 $\frac{1}{4}$ —2:24 $\frac{1}{2}$ —2:25 $\frac{1}{2}$ —2:28.		

CLASS No. 9.—1 $\frac{1}{4}$  MILE RUNNING.—Purse, \$200.Run Sept. 11th ; dash, 1 $\frac{1}{4}$  mile ; 6 entries ; entrance paid in, \$120.

E. F. Burside, Iowa, "Gov. Bowie," first.....	\$150 00	
Ed. Richardson, Minneapolis, "Deboe," second.....	50 00	
		\$200 00
Time, 2:21.		

## CLASS No. 11.—2:30 CLASS, TROTting.—Purse, \$1,000.

Trotted Sept. 12th ; 1 mile heats, 3 in 5 ; 7 entries ; entrance paid in, \$400.

Willson & Stanley, Detroit, Mich., "Little Eva," first.....	\$500 00	
P. Garrity, Ashland, Wis., "Brother Dan," second.....	250 00	
C. B. Dickins, Minneapolis, "Seth Thomas," third .....	150 00	
George C. Raymond, Detroit, Mich., "Geneocoo," fourth....	100 00	
		\$1,000 00
Time, 2:25 $\frac{1}{4}$ —2:29 $\frac{1}{4}$ —2:23 $\frac{1}{2}$ —2:23 $\frac{1}{4}$ .		

## CLASS No. 12.—2:37 CLASS, TROTting.—Purse, \$600.

Trotted Sept. 12th ; 1 mile heats, 3 in 5 ; 11 entries ; entrance paid in, \$330.

H. L. and F. D. Stout, Dubuque, Iowa, "Iona," first.....	\$300 00	
Mark Hopkins, St. Clair, Mich., "John Dickson," second..	150 00	
Chas. E. Smith, Rochester, Minn., "Jay Bee Ess," third...	90 00	
Dell Barker, Greenwood, Mo., "Champion Medium," fourth	60 00	
		\$600 00
Time, 2:28 $\frac{1}{2}$ —2:28 $\frac{1}{4}$ —2:29 $\frac{1}{4}$ —2:22 $\frac{1}{4}$ .		

## CLASS No. 13.—ROAD RACE, TROT TO CART.—Purse, \$250.

Trotted Sept. 12th; 1 mile heats, 3 in 5; 8 entries; entrance paid in, \$162.50.		
J. H. Burwell, St. Paul, "Stuart," first.....	\$125 00	
F. A. Seymour, St. Paul, "Betsy Brown," second.....	62 50	
Chas. P. Gove, Anoka, "Pedro," third.....	37 50	
Geo. W. Speer, Minneapolis, "Uncle Josh," fourth.....	25 00	
	<hr/>	\$250 00
Time, 2:32 — 2:30½ — 2:27¾ — 2:27½.		

CLASS No. 14.—STEEPLE CHASE.—MINNESOTA CLUB CUP VALUED AT \$100.  
Purse, \$400.

Run Sept. 12th; 2 mile heat; 6 entries; entrance paid in, \$120.		
Ed. Richardson, Minneapolis, "Deboe," first.....	\$250 00	
Fred B. Chase, Sibley, Iowa, "John Campbell," second.....	100 00	
C. F. Benson, Sibley, Ia., "Graditz," third.....	50 00	
	<hr/>	\$400 00
Time, 3:32.		

## CLASS No. 15.—RUNNING.—Purse, \$200.

Run Sept. 12th; one mile dash; 4 entries; entrance paid in, \$40.		
J. E. Cushing, Minneapolis, "Col. Gare," first.....	\$150 00	
John Bradford, Big Lake, "Anna," second.....	50 00	
	<hr/>	\$200 00
Time, 1:48¾.		

## CLASS No. 16.—ROAD RACE.—PACES TO CART.—Purse, \$250.

Run Sept. 13th; one mile heats, 3 in 5; 6 entries; entrance paid in, \$112.50.		
Geo. W. Spear, Minneapolis, "Jumbo," first.....	\$125 00	
W. H. Gay, St. Paul, "Mountain Boy," second.....	62 50	
	<hr/>	\$187 50
Time, 2:35 — 2:31¾ — 2:31¼.		

## CLASS No. 17.—2:24 CLASS.—PACING.—Purse, \$1,000.

Paced Sept. 13th; 1 mile heats, 3 in 5; 7 entries; entrance paid in, \$600.		
A. C. Bruce, Minneapolis, "Lillian," first.....	\$500 00	
A. J. Libby, Minneapolis, "Nellie O," second.....	250 00	
G. W. Farrar, Minneapolis, "Bessie Moore," third.....	150 00	
Abe Devine, Eau Claire, Wis., "Bay Diamond," fourth.....	100 00	
	<hr/>	\$1,000 00
Time, 2:19½ — 2:19¾ — 2:22½.		

## CLASS No. 18.—BRUNO BEAUPRE'S PACING POLE TEAM.

(To beat record of 2:22¼.)

Run Sept. 13th; one mile heat.

Time, 2:22.

## CLASS No. 19.—RUNNING.—Purse, \$200.

Run Sept. 13th; 1¾ mile heat; 5 entries; entrance paid in, \$100.		
E. F. Burnside, Sibley, Ia., "Gov. Bowie," first.....	\$150 00	
C. F. Benson, Sibley, Ia., "Graditz," second.....	50 00	
	<hr/>	\$200 00
Time, 3:23¼.		



CLASS NO. 20.—MINNESOTA BREEDERS.—Special for Two Year Olds.—  
Purse, \$140.

Run Sept. 13th; 1 mile heat; 5 entries; entrance paid in, \$90.

W. S. McGrath, St. Paul, "Tipperary," first.....	\$70 00	
H. G. Finkle, Moorhead, "Futurity Girl," second.....	35 00	
T. B. Merritt, Rosemount, "Linguard," third.....	} 35 00	
F. A. Sabin, Harry Blackwood, fourth.....		
		<hr/> \$140 00
Time, 3:13½ — 3:10¾.		

## ENTRANCE FEES.

THE FOLLOWING IS THE SECRETARY'S REPORT OF ENTRANCE  
MONEY COLLECTED.

CLASS.	FROM WHOM RECEIVED.	Paid Secretary.	Applied on Purse.	Total.
1. Minnesota Breeders' Trotting.....	Treas. Breeders' Ass'n	\$60.00	.....	\$60.00
2. Minnesota Breeders' Anticipators, 3 yrs..	Treas. Breeders' Ass'n	80.00	.....	80.00
3. Minnesota Breeders' 4 year olds.....	Treas. Breeders' Ass'n	60.00	.....	60.00
4. Minnesota Breeders' 2:40 Class.....	Treas. Breeders' Ass'n	30.00	.....	30.00
5. Minnesota Breeders' 2:40 Pace.....	Treas. Breeders' Ass'n	120.00	.....	120.00
6. 3:00 Trotting.....	Wilson & Stanley....	100.00	.....	100.00
	G. W. Spear .....	100.00	.....	100.00
	O. H. Rogers .....	100.00	.....	100.00
	Hunt Barnes.....	100.00	.....	100.00
	Dell Barker.....	100.00	.....	100.00
	Bliss & Parsons.....	30.00	.....	30.00
7. 2:30 Pacing.....	Geo. C. Loomis.....	60.00	.....	60.00
	Mark Hopkins.....	.....	\$60.00	60.00
	J. Longshore .....	60.00	.....	60.00
	S. T. Kintz.....	60.00	.....	60.00
	Steel & Chapin .....	60.00	.....	60.00
	G. W. West.....	60.00	.....	60.00
	H. L. & F. G. Stout..	.....	60.00	60.00
	John F. Hawkins....	30.00	.....	30.00
	C. M. Clough.....	60.00	.....	60.00
	George W. Farrar...	30.00	.....	30.00
8. 2:24 Trotting.....	C. C. Lyford.....	30.00	.....	30.00
	A. J. Libby.....	60.00	.....	60.00
	E. F. Burnside.....	20.00	.....	20.00
	Robert L. Deakin....	20.00	.....	20.00
	John Bradford.....	20.00	.....	20.00
	H. W. Bidgood.....	20.00	.....	20.00
	Ed. Richardson.....	20.00	.....	20.00
	C. F. Benson .....	20.00	.....	20.00
	J. E. Cushing.....	20.00	.....	20.00
	Wilson & Stanley....	.....	100.00	100.00
10. $\frac{3}{4}$ mile dash, Weight for age.....	P. Garrity.....	100.00	.....	100.00
	C. B. Dickens.....	100.00	.....	100.00
	George C. Raymond..	100.00	.....	100.00
	C. M. Buck.....	100.00	.....	100.00
	Wilson & Stanley....	30.00	.....	30.00
	H. L. & F. D. Stout..	.....	60.00	60.00
12. 2:37 Trotting.....	Dell Barker.....	60.00	.....	60.00
	Charles E. Smith.....	60.00	.....	60.00
	J. H. Stewart.....	60.00	.....	60.00
	George W. Farrar....	60.00	.....	60.00
	Mark Hopkins.....	60.00	.....	60.00
	F. C. Avery .....	.....	60.00	60.00
	.....	.....	.....	.....
	.....	.....	.....	.....
	.....	.....	.....	.....

ENTRANCE FEES.—*Concluded.*

CLASS.	FROM WHOM RECEIVED.	Paid Secretary.	Applied on Purse.	Total.
13. Road Race, Trot to Cart.....	George W. Farrar.....	\$25.00	.....	\$25.00
	A. C. Bruce.....	12.50	.....	12.50
	G. W. Spear.....	.....	\$25.00	25.00
	F. A. Seymour.....	25.00	.....	25.00
	M. Z. Mayne & Co....	25.00	.....	25.00
	C. M. Griggs.....	25.00	.....	25.00
	J. H. Burwell.....	25.00	.....	25.00
	Charles P. Gove.....	25.00	.....	25.00
	E. F. Burnside.....	20.00	.....	20.00
14. Steeple Chase.....	F. B. Close.....	40.00	.....	40.00
	H. W. Bidgood.....	20.00	.....	20.00
	E. F. Benson.....	20.00	.....	20.00
	Ed. Richardson.....	20.00	.....	20.00
	John Bradford.....	10.00	.....	10.00
15. 1 mile dash, Running	H. H. Cheatham.....	10.00	.....	10.00
	Robert L. Deakin.....	10.00	.....	10.00
16. Road Race, Pace to Cart.....	W. H. Gay.....	25.00	.....	25.00
	A. C. Bruce.....	25.00	.....	25.00
	Geo. W. Spear.....	.....	25.00	25.00
	F. H. Sammins.....	12.50	.....	12.50
	J. S. Steele.....	25.00	.....	25.00
	F. G. Buford.....	25.00	.....	25.00
17. 2:24 Pacing.....	Abe Devine.....	100.00	.....	100.00
	A. C. Bruce.....	100.00	.....	100.00
	Lewis Hinkley.....	.....	100.00	100.00
	A. J. Woodmansee....	50.00	.....	50.00
	Geo. W. Farrar.....	100.00	.....	100.00
	A. J. Libby.....	10.00	90.00	100.00
	W. J. Wadsworth.....	50.00	.....	50.00
19. 1 $\frac{3}{4}$ mile dash, Running	E. F. Burnside.....	20.00	.....	20.00
	F. B. Close.....	20.00	.....	20.00
	W. H. Bidgood.....	20.00	.....	20.00
	Ed. Richardson.....	20.00	.....	20.00
	C. F. Benson.....	20.00	.....	20.00
21. 2:45 Trotting.....	Graves Bros.....	100.00	.....	100.00
	P. Devery.....	100.00	.....	100.00
22. 3:27 Trotting.....	Ed. Stett.....	60.00	.....	60.00
		\$3,455.00	\$580.00	\$4,035.00

## RECAPITULATION RACING DEPARTMENT.

Class.	Description of Races.	Nominations.	Started in Races.	Entrance Money.	Suspended for Non-Payment of Entrance Money.	Balance of Purse Paid by Society.	Total Purse Paid.
1	Minnesota breeders' stake, trotting two year olds....	4	3	\$60.00	.....	\$25.50	\$85.50 *
2	Minnesota breeders' stakes, anticipations stakes three year olds.....	2	2	80.00	.....	25.00	105.00
3	Minnesota breeders' stakes, four year olds.....	2	2	60.00	.....	.....	45.00 *
4	Minnesota breeders' stake, 2:40 stallions.....	1	1	30.00	.....	.....	30.00
5	Minnesota breeders' stakes, 2:40 pacers.....	4	2	120.00	.....	45.00	165.00
6	3:00 trotting.....	6	4	500.00	\$100.00	400.00	1,000.00
7	2:30 pacing.....	7	6	330.00	.....	210.00	540.00
8	2:24 trotting.....	7	3	210.00	60.00	270.00	540.00
9	1 1/4 mile dash running.....	6	6	120.00	.....	80.00	200.00
10	3/4 mile dash, weight for age.....	.....	.....	20.00	.....	.....	*20.00
11	2:30 trotting.....	7	5	400.00	50.00	550.00	1,000.00
12	2:37 trotting.....	11	7	330.00	180.00	90.00	600.00
13	Road race, trot to cart.....	8	7	162.50	.....	87.50	250.00
14	Steeple chase.....	6	4	120.00	.....	280.00	400.00
15	One mile dash running.....	4	4	30.00	.....	170.00	200.00
16	Road race, pacers to cart.....	6	5	112.50	.....	75.00	187.50
17	2:24 pacing.....	7	5	410.00	.....	590.00	1,000.00
19	1 3/4 mile dash running.....	5	3	100.00	.....	100.00	200.00
21	2:45 trotting.....	2	.....	200.00	.....	.....	*200.00
22	2:27 trotting.....	1	.....	60.00	.....	.....	60.00 *
		96	69	\$3,455.00	\$390.00	\$2,995.00	\$6,828.00 *

\* Refunded.

## TICKET REPORT.

*To the Board of Managers of the Minnesota State Agricultural Society,*

GENTLEMEN: Below you will find a condensed report of all tickets taken at gates during the fair held from Sept. 10 to 15, 1888, with the value of same; also, find attached report in detail for each day of fair.

43,876 general admission tickets at 50 cents.....	\$21,438 00
8,371 railroad tickets at 50 cents.....	4,185 00
3,649 sham battle tickets at 50 cents.....	1,824 50
1,929 season coupon tickets at 33 $\frac{1}{3}$ cents.....	643 00
3,243 half fare tickets at 25 cents.....	810 75
13,052 grand stand tickets at 25 cents.....	5,263 00
7,635 grand stand tickets at 50 cents.....	3,817 50
1,108 grand stand reserved tickets at 50 cents.....	554 00
425 grand stand reserved tickets at \$1.....	425 00
12 railroad tickets (in exchange for 22 exposition).....	6 00
	<hr/>
	\$36,967 25

JOHN COOPER,  
*Superintendent of Gates.*

The value of state fair tickets taken on Saturday, September 15th, Grand Army Day, and included in general report, is as follows:

12,178 general admission tickets at 50 cents.....	\$6,089 00
2,663 railroad tickets at 50 cents.....	1,331 50
3,649 sham battle tickets at 50 cents.....	1,824 50
404 season tickets at 33 $\frac{1}{3}$ cents.....	134 67
1,209 half fare tickets at 25 cents.....	302 25
7,635 grand stand tickets at 50 cents.....	3,817 50
425 grand stand reserved tickets at \$1.....	425 00
5 exposition tickets (exchanged) 25 cents.....	1 25
	<hr/>
	\$13,925 67



## TICKET ACCOUNT STATE FAIR, SEPT. 10-15, 1888.

*Tickets Taken at Gates.*

DAY OF WEEK.	General Adm'n Tickets.	One half Fare.	Rail-road.	Sea-son.	Sham Battle.	Helper.	Horse men.	Total.	Grand Stand.	Same Res.
Monday.....	705	39	135	221	.....	392	105	1,597	134	16
Tuesday .....	4,452	265	878	324	.....	556	92	6,567	1,950	250
Wednesday..	5,909	223	1,355	320	.....	583	98	8,488	2,870	303
Thursday.....	18,316	1,430	2,763	382	.....	738	106	23,735	8,098	439
Friday.....	1,316	77	577	278	.....	417	44	2,709	.....	.....
Saturday .....	12,178	1,209	2,663	404	3,649	850	.....	20,953	7,635	425
Total.....	42,876	3,243	8,371	1,929	3,649	3,536	445	64,049	20,687	1,533

## MONDAY, SEPT. 10, 1888.

NAME OF GATE.	Gen. Admis'n.	Half Fare.	Season.	Railroad.	Horsemen.	Helper.	Total.	Register.	REMARKS.
Railroad No. 1.....	211	8	31	40	.....	91	381	382	2 passes.
Railroad No. 2.....	93	8	28	41	14	61	245	346	
Railroad No. 3.....	.....	.....	.....	.....	.....	.....	.....	.....	
Railroad No. 4.....	.....	.....	.....	.....	.....	.....	.....	.....	
Railroad No. 5.....	180	2	29	32	.....	46	289	212	8 passes.
Railroad No. 6.....	33	3	3	11	3	16	69	68	
Railroad No. 7.....	.....	.....	.....	.....	.....	.....	.....	.....	
Railroad No. 8.....	.....	.....	.....	.....	.....	.....	.....	.....	
St. Paul wagon.....	150	14	63	5	35	95	362	.....	7 passes.
Minneapolis wagon.....	37	4	15	3	1	12	72	.....	
Headquarters.....	1	.....	38	3	52	70	164	.....	
Collected on grounds.....	.....	.....	14	.....	.....	1	15	.....	
Total.....	705	39	221	135	105	392	1,597	.....	

Grand stand..... 134  
 Same reserved..... 16

TUESDAY, SEPT. 11, 1888.

NAME OF GATE.	General Ad- mission.	Half Fare.	Season.	Railroad.	Horsemen.	Helper.	Total.	Register.	REMARKS.
Railroad No. 1.....	1,066	75	38	220	2	101	1,502	1,491	
Railroad No. 2.....	321	17	18	113	7	55	531	530	
Railroad No. 3.....	200	9	16	89	3	37	354	358	
Railroad No. 4.....	172	5	16	81	13	74	366	373	{ 4 passes.
Railroad No. 5.....	916	34	16	152	8	45	1,171	1,177	{ 1 exp. rail'r'd.
Railroad No. 6.....	315	9	16	87	2	25	454	459	{ 1 pass. 5 exp.
Railroad No. 7.....	236	2	1	39	6	18	302	304	{ 3 '87 tickets.
Railroad No. 8.....	132	3	15	40	11	24	225	236	1 pass.
St. Paul wagon.....	775	93	41	42	14	39	1,004	.....	2 Sept. 14 horse
Minneapolis wagon.....	281	16	11	9	14	14	345	.....	{ 8 passes.
Headquarters.....	33	1	73	6	12	89	214	.....	{ 1 S'pt. 10 h'rse
Collected on grounds.....	.....	1	63	.....	.....	35	99	.....	
Total.....	4,452	265	324	878	92	556	6,567	.....	

Grand stand..... 1,950  
 Same reserved..... 250

WEDNESDAY, SEPT. 12, 1888.

NAME OF GATE.	General Ad- mission.	Half Fare.	Season.	Railroad.	Horsemen.	Helper.	Total.	Register.	REMARKS.
Railroad No. 1.....	1,222	55	33	362	7	120	1,799	1,797	
Railroad No. 2.....	492	13	20	178	2	57	762	753	
Railroad No. 3.....	312	10	16	183	10	75	606	606	
Railroad No. 4.....	203	5	19	98	17	60	402	407	5 passes.
Railroad No. 5.....	1,386	31	16	219	10	47	1,709	1,679	
Railroad No. 6.....	464	11	5	124	7	28	639	.....	4 railroad.
Railroad No. 7.....	287	7	6	58	2	26	386	386	2 exposition.
Railroad No. 8.....	202	2	21	59	10	28	323	334	{ 2 exposition.
St. Paul wagon.....	989	69	33	41	5	42	1,179	.....	{ 9 passes.
Minneapolis wagon.....	324	16	17	11	15	16	399	.....	1 exposition.
Headquarters.....	28	2	68	22	13	74	207	.....	
Collected in grounds.....	.....	2	66	.....	.....	10	78	.....	
Total.....	5,909	223	320	1,355	98	583	8,488	.....	

Grand stand..... 2,870  
 Same reserved..... 303

THURSDAY, SEPT. 13, 1888.

NAME OF GATE.	General Admission.	Half Fare.	Season.	Railroad.	Horsemen.	Helper.	Total.	Register.	REMARKS.
Railroad No. 1.....	4,392	316	51	542	8	136	5,445	5,420	
Railroad No. 2.....	2,019	136	36	335	2	104	2,632	2,563	
Railroad No. 3.....	1,648	109	30	349	11	71	2,218	2,214	
Railroad No. 4.....	999	37	28	273	22	89	1,448	1,403	1 pass.
Railroad No. 5.....	2,480	67	13	412	6	44	3,022	2,990	3 passes.
Railroad No. 6.....	1,110	25	12	288	3	39	1,477	1,468	
Railroad No. 7.....	627	14	20	182	5	38	886	881	{ 2 exposition. 1 pass.
Railroad No. 8.....	625	7	14	197	12	42	897	906	{ 2 exposition. 11 passes.
St. Paul wagon.....	3,587	614	47	147	5	66	4,466	.....	1 railroad.
Minneapolis wagon.....	741	102	16	31	20	25	935	.....	
Headquarters.....	72	3	63	7	12	78	235	.....	
Collected on grounds..	16	.....	52	.....	.....	6	74	.....	
Total.....	18,316	1,430	382	2,763	106	738	23,735	.....	

Grand stand..... 8,098

Same reserved..... 539

FRIDAY SEPT. 14, 1888.

NAME OF GATE.	General Admission.	Half Fare.	Season.	Railroad.	Horsemen.	Helper.	Total.	Register.	REMARKS
Railroad No. 1.....	302	23	31	129	2	66	553	553	
Railroad No. 2.....	91	7	13	48	1	39	199	199	
Railroad No. 3.....	101	6	10	83	3	47	250	249	
Railroad No. 4.....	124	7	36	91	12	81	351	352	4 passes.
Railroad No. 5.....	296	6	12	77	1	21	413	408	1 pass.
Railroad No. 6.....	64	.....	13	40	2	15	134	134	
Railroad No. 7.....	108	1	13	50	9	26	207	210	2 passes.
Railroad No. 8.....	96	3	11	43	5	39	197	196	
St. Paul wagon .....	90	17	12	8	2	14	143	.....	
Minneapolis wagon .....	26	5	13	4	5	10	63	.....	
Headquarters .....	12	2	51	4	2	56	127	.....	
Collected on grounds.....	6	.....	63	.....	.....	3	72	.....	
Total .....	1,316	77	278	577	44	417	2,709	.....	



## REPORT OF THE COMMITTEE ON THE SALE OF PRIVILEGES.

*To the President and Honorable Board of Managers of the Minnesota State Agricultural Society,*

GENTLEMEN: Your committee do respectfully make the following report of the moneys received by them for the sale of privileges on the fair grounds at the fair ending Sept. 15, 1888.

JOHN F. NORRISH,  
*Chairman.*

NAME.	Amount.	NAME.	Amount.
Wm. Banholzer.....	\$150.00	S. S. Keyes.....	50.00
Borden & Madison.....	100.00	E. Freeman.....	50.00
Borden & Madison.....	100.00	Scott Abbott.....	15.00
F. A. Mason.....	100.00	Boston & Hartsack.....	75.00
R. O. Neil.....	75.00	Harris & Conklin.....	409.82
Edward Frank.....	190.00	Mr. Smith.....	50.00
J. Olson.....	130.00	Nichols & Soufana.....	25.00
F. W. Luley.....	100.00	W. H. Arbuckle.....	10.00
John Dale.....	105.00	E. Davidson.....	25.00
C. H. Chamberlain.....	140.00	A. Sparger.....	25.00
Frank & Sodini.....	50.00	L. W. Kanrasitt.....	5.00
Mrs. Ryan.....	15.00	B. Mason.....	20.50
Rice & Gordon.....	30.00	Thos. Hurley.....	10.00
Mrs. King.....	40.00	James Waddell.....	5.00
Austin & Co.....	17.50	Charles Brace.....	5.00
Mrs. Calgrin.....	40.00	Salsbury Bros.....	25.00
Frank Rose.....	41.00	Mr. McIntyre.....	10.00
Frank & Sodini.....	50.00	W. M. Cary.....	25.00
Mrs. M. C. Simmons.....	50.00	Peter Helena.....	25.00
R. A. Tromley.....	75.00	W. H. Hanscombe.....	2.00
Mrs. E. Wienar.....	25.00	W. Brittanio.....	5.00
T. F. Oakes.....	40.00	C. W. Chapman.....	5.00
Mrs. Cornick.....	65.00	Joseph Feltoos.....	5.00
A. F. E. Vitt.....	100.00	W. J. Sampson.....	2.00
A. W. Fisher.....	100.00	G. S. Bond.....	2.00
Mrs. Nichols.....	105.00	James Gooding.....	3.50
Mr. Frankenstein.....	140.00	W. P. Kenall.....	5.00
Mrs. Gage.....	65.00	E. St. Cloud.....	5.00
C. C. Miller.....	100.00	Mr. Manning.....	2.00
Sanborn & Ware.....	45.00	B. Smith.....	5.00
Randolph Schiffell.....	60.00	J. B. Moore.....	22.00
C. W. Wilson.....	325.00	H. E. Zier.....	15.00
John Mercier.....	75.00	John Belleste.....	5.00
Wm. Bowden.....	150.00	John Mitchell.....	10.00
Samuel Allen.....	50.00	Mr. Maising.....	5.00



SALE OF PRIVILEGES—*Continued.*

NAME.	Amount.	NAME.	Amount.
B. Stern.....	10.00	Bray & Co.....	25.00
Mr. Nichols.....	10.00	A. W. Allen.....	25.00
White & Eller.....	10.00	E. B. Parker.....	35.00
Lewis & Co.....	75.00	J. Brewer .....	40.00
Slayton & Co.....	25.00	Wm. H. Bennett.....	25.00
R. Rosenbaum.....	20.00	Edwin Fox.....	25.00
R. W. Poll.....	25.00	B. Frank.....	25.00
J. W. Palmer.....	5.00	Mr. Millan.....	25.00
H. J. Barnett.....	125.00	Mr. Casson.....	25.00
Wm. Deitweiler.....	40.00	Mr. Carson.....	25.00
Dr. Chair .....	25.00		
Samuel Parker.....	25.00	Total amount received..	\$4,677.32
W. J. Harvey.....	25.00		

## REPORT OF W. F. CROSS, SUPERINTENDENT OF GROUNDS.

## AMOUNT COLLECTED FOR STALL RENT AND PASTURAGE.

Received From.	Amount.
James Carr, 3 stalls, April 15th to April 30th.....	\$3 00
Philo Sweet, 8 stalls, May 1st to May 31st.....	16 00
A. M. Waufle, 2 stalls, April 24th to May 31st.....	5 00
G. W. Farrar, 3 stalls, April 24th to May 31st.....	9 00
John Doud, 12 stalls, May 1st to May 31st.....	25 00
C. H. Scott, 3 stalls, May 1st to May 31st.....	6 00
L. Johnson, 3 stalls, May 7th to May 31st.....	4 00
George Spear, 14 stalls, May 12th to May 31st.....	18 50
A. C. Bruce, 8 stalls, May 14th to July 1st.....	24 00
L. Hinckley, 6 stalls, May 15th to May 31st.....	6 00
B. H. Beach, 3 stalls, June 3d to July 1st.....	6 00
E. H. Hull, 1 stall, June 3d to July 1st.....	2 00
Philo Sweet, 8 stalls, June 1st to July 1st.....	16 00
John Doud, 18 stalls, June 1st to July 1st.....	35 00
James Carr, 4 stalls, June 1st to July 1st.....	8 00
C. H. Scott, 2 stalls, June 1st to July 1st.....	4 00
A. M. Waufle, 3 stalls, June 1st to July 1st.....	6 00
H. G. Finkle, 3 stalls, June 1st to July 1st.....	6 00
A. C. Bruce, 8 stalls.....	16 00
A. C. Bruce, pasture one-third of season.....	50 00
M. J. Gannon, stalls.....	12 00
L. Nichols, stalls.....	3 00
Wm. Mathews, stalls.....	23 00
A. C. Bruce, pasturage.....	50 00
A. C. Bruce, stalls.....	32 00
Mr. Cole, stalls.....	5 00
Mr. Cole, hay.....	5 00
R. Hitchcock, hay.....	5 00
A. C. Bruce, hay.....	10 00
O. J. Evans, pasturage.....	50 00
John Doud, hay.....	10 00
George Spear, hay.....	6 50
L. Hinckley, stalls.....	18 00
James Carr, stalls.....	16 50
Robert Hitchcock, stalls.....	22 00
Pasturing ponies.....	14 00
Doud & Gannon, stalls.....	37 50
Doud & Gannon, hay.....	20 00
A. C. Bruce, hay.....	35 00
A. C. Bruce, pasturage.....	50 00
Total.....	\$674 00

## FORAGE RECEIPTS.

Received from A. N. Johnson, sale of forage.....	\$374 06
Received from Leonard Johnson.....	60 10
Total.....	<u>\$434 16</u>

## AMOUNTS DUE SOCIETY.

Cash received from sundry sources, in hands of secretary.....	\$280 50
From Twin City Driving Club.....	200 00
For stall rent and pasturage, collected by W. F. Cross (estimated)	175 00
For sale of forage, (checks in hands of secretary).....	45 70
For suspensions, 1887.....	41 19
For suspensions, 1888.....	340 00
Total.....	<u>\$1,082 39</u>

# REPORT OF THE AUDITING COMMITTEE.

OF THE

## BOARD OF MANAGERS OF THE MINNESOTA STATE AGRICULTURAL SOCIETY FOR 1888.

*To the Honorable Board of Managers of the Minnesota State Agricultural Society:*

Your auditing committee beg leave to make the following report:

We have carefully examined all bills and claims presented against the society, and have acted upon the same to the best of our judgment and ability, as shown per attached list, made in detail, of said claims and allowances thereon.

Respectfully submitted,

A. N. JOHNSON,  
JOHN COOPER,

*Auditing Committee.*

ST. PAUL, MINN., Dec. 10, 1888.

REPORT OF LABOR ACCOUNTS AUDITED AND ALLOWED BY THE  
AUDITING COMMITTEE MINNESOTA STATE AGRICULTURAL  
SOCIETY AT SUNDRY MEETINGS HELD DURING THE YEAR 1888.

Voucher No.	CLAIMANT AND SERVICES.	Amount Claimed.	Amount Allowed.
	John Cooper, manager, 1886.....		\$250.00
3	H. F. Sanders, board of laborers, 1887.....		11.00
4	Lefebvre & Des Lauriers, labor, 1887.....		17.70
7	Wm. Crawford, labor, 1885.....		4.00
10	A. L. Bradford, auditor, 1887.....		26.00
11	Otto E. Naegle, auditor, 1887.....		37.50
12	Henry Feig, auditor, 1887.....		44.80
19	K. N. Guiteau, assistant secretary, 1886.....		30.00
20	John Cooper, manager, 1887..		200.00
27	H. E. Hoard, for clearing snow off buildings.....		48.81
37	H. E. Hoard, secretary and superintendent.....		416.66
44	E. M. Newcomb, laborer.....		18.00
45	Mathew Cannon, laborer.....		16.50
46	David Wilson, laborer.....		6.75
47	Andrew Westlund, laborer.....		7.50
48	Harry Johnson, laborer.....		10.50
49	Michael Schetsted, laborer.....		44.80
50	R. R. Russell, laborer.....		30.00
52	C. A. Schwartz, laborer.....		66.80
53	John J. Anderson, laborer.....		105.00
54	D. L. Billingsley, labor by contract.....		239.60
55	John J. Anderson, laborer.....		2.10
56	John Keys, board of laborers.....		73.84
57	H. F. Sanders, board of laborers.....		78.82
58	W. H. Libbey, labor with team.....		12.75
59	H. R. Denny, superintendent and secretary.....		1,041.66
61	O. M. Lilliquist, carpenter.....		86.50
77	W. P. Cowles, carpenter.....		10.62
77	John Hood, carpenter.....		9.37
77	A. L. Bergreen, laborer.....		16.35
77	Rudolph Hansen, laborer.....		22.50
77	Albert Hermann, laborer.....		43.65
77	H. F. Sanger, laborer.....		4.65
77	J. M. Lynn, laborer.....		5.55
77	Jacobs Hanks, laborer.....		51.15
77	Edward Lindig, hauling manure.....		120.00
77	John Goody, carpenter.....		120.00
77	Ed. Allen, laborer.....		62.70
77	August Carlson, laborer.....		47.40
77	Geo. C. Allen, carpenter.....		31.25
77	August Hogberg, carpenter.....		122.50
77	Olivier Gelkey, laborer.....		19.50
77	Wm. H. Libby, laborer with team.....		35.00
77	Henry Vallmer, laborer.....		14.25
77	John Ryan, laborer.....		12.90
77	Chas. R. Cross, laborer.....		22.00
77	R. E. Olmsteadt, carpenter.....		1.25
77	R. Wilkie, labor of team.....		28.00
77	J. G. Hartig, labor of team.....		31.55
77	Halldon Harrison, laborer.....		33.00
77	Andrew Brown, labor of team.....		31.50



LABOR ACCOUNTS AUDITED.—*Continued.*

Voucher No.	CLAIMANT AND SERVICES.	Amount Claimed.	Amount Allowed.
77	Samuel Johnson, labor of team.....		\$111.30
77	J. V. Wilson, labor of team .....		22.75
77	August Nelson, laborer .....		74.70
77	Daniel Anderson, laborer .....		73.95
77	James Larson, laborer .....		68.55
77	Michael Janson, laborer .....		44.55
77	C. A. Swartz, laborer .....		92.75
77	John Keys, board of laborers .....		95.34
77	Harry Johnson, carpenter .....		176.24
77	Andrew Harrison, carpenter.....		190.43
77	Peter Blumer, laborer .....		12.00
77	Edward Lindig, laborer.....		8.10
77	Henry Sharing, laborer .....		16.13
77	Geo. Gerlack <i>et al.</i> , laborers.....		18.05
77	Alfred Anderson, laborer .....		22.25
77	R. R. Russell, laborer .....		24.00
77	Benj. Moss, labor of team.....		45.00
77	Magnus Peterson, laborer .....		20.00
77	Chas. Erickson, laborer.....		8.75
77	W. H. Laffavor, labor and team.....		33.60
77	James Linn, laborer.....		3.75
77	Wm. De Gray, laborer.....		5.70
77	John Larson, laborer .....		64.50
77	Pat. Quinlan, team.....		130.72
77	R. R. Russell, laborer.....		15.00
77	Geo. Hawley, laborer.....		4.35
77	James Spellman, laborer.....		8.70
77	B. J. Toland, laborer.....		6.75
546	John Keys, board of laborers.....		28.50
547	H. F. Sanders, board of laborers.....		48.50
77	Frank Gunderman, laborer.....		46.50
77	W. H. Libby, team.....		8.75
77	Jacobs Hanks, laborer.....		24.00
78	C. D. Geddings, assistant superintendent .....		48.00
78	M. T. Grattan, judge.....		150.00
78	W. H. Taft, judge.....		150.00
78	C. D. Geddings, judge.....		4.00
78	A. Long, assistant superintendent.....		27.00
78	L. H. Prosser, manager.....		150.00
78	H. H. Kaltman, assistant superintendent...		36.00
78	Wm. Ahern, assistant superintendent .....		27.00
78	M. O. Tousley, assistant superintendent.....		9.00
78	A. P. Jones, assistant superintendent.....		18.00
78	J. H. Makepiece, assistant superintendent..		27.00
78	H. V. Poor, assistant superintendent.....		30.00
78	John Gates, assistant superintendent.....		18.00
78	John Byers, assistant superintendent.....		60.00
78	Geo. M. Tousley, assistant superintendent..		100.00
78	S. Powers, assistant superintendent.....		28.50
78	G. L. Trott, assistant superintendent.....		43.50
78	L. A. Narmandin, assistant superintendent..		35.75
78	Wm. Richter, assistant superintendent.....		22.50
78	August Schmidt, assistant superintendent..		15.00
78	W. W. Folsom, assistant superintendent....		63.00

LABOR ACCOUNTS AUDITED.—*Continued.*

Voucher No.	CLAIMANT AND SERVICE.	Amount Claimed.	Amount Allowed.
78	Joe. Hemenway, assistant superintendent.....		\$18.00
78	Eliza Mayo, assistant superintendent.....		30.00
78	Miss Kate Mayo, assistant superintendent.....		30.00
78	Miss Alisa Dougan, assistant superintendent.....		30.00
78	Miss L. Pearce, assistant superintendent.....		27.00
78	E. F. Batton, assistant superintendent.....		38.00
78	R. R. Russell, assistant superintendent.....		45.00
78	W. W. Wood, assistant superintendent.....		15.00
78	Ole N. Nelson, assistant superintendent.....		25.00
78	Mrs. W. P. Jewett, judge.....		9.00
78	Mrs. L. W. French, judge.....		9.00
78	Madge M. Dyke.....		9.00
78	Miss L. P. Walsingham, assistant supt.....		12.00
78	A. S. Brisbine, assistant superintendent.....		75.00
78	W. J. Taylor, assistant superintendent.....		64.00
78	E. G. Chreiman, assistant superintendent.....		55.50
78	H. Sharing, assistant superintendent.....		61.50
78	Miss Minnie Sharing, assistant supt.....		12.00
78	Vincent DeGernon, superintendent.....		150.00
78	Capt. Arthur Egan, assistant supt.....		115.00
78	Clarke Chambers, assistant superintendent.....		6.75
78	Andrew Brown, assistant superintendent.....		45.00
78	Col. W. M. Liggett, judge.....		30.00
78	Samuel Partridge, assistant secretary.....		250.00
78	Wm. Rodgers, assistant secretary.....		68.00
78	L. Wallace, judge.....		11.87
78	E. S. Cummings, judge.....		48.25
78	F. M. Wood, auctioneer.....		119.30
78	F. W. Terry, assistant superintendent.....		96.00
78	Geo. W. Taylor, assistant secretary.....		105.00
78	John E. Impey, assistant secretary.....		30.00
78	Tom Scott, assistant superintendent.....		30.00
78	W. F. Cross, superintendent of grounds.....		750.00
78	W. A. Gates, superintendent.....		100.00
78	S. M. Emery, superintendent.....		100.00
78	Dell Lowell, superintendent.....		13.50
78	C. M. Schultz, superintendent printing.....		300.00
78	E. E. Busk, assistant treasurer.....		30.00
78	G. H. Coon, assistant treasurer.....		25.00
78	W. F. Somerfield, ticket seller.....		60.00
78	Chas. Crany, assistant in treasurer's and ticket seller's office.....		26.00
78	L. D. McLean, ticket seller.....		24.00
78	L. M. Melvin, ticket seller.....		24.00
78	M. Carmichare, ticket seller.....		24.00
78	D. Libbison, ticket seller.....		22.00
78	W. H. Dunn, ticket seller.....		22.00
78	J. F. Wyman, ticket seller.....		18.00
78	W. C. Barnard, ticket seller.....		22.00
78	W. B. Thorne, ticket seller.....		14.00
78	T. L. Hays, ticket seller.....		4.00
78	G. L. Fuller, ticket seller.....		2.50
78	L. J. Fuller, ticket seller.....		2.50
78	C. F. Nickels, ticket seller.....		4.00

LABOR ACCOUNTS AUDITED—*Continued.*

Voucher No.	CLAIMANT AND SERVICES.	Amount Claimed.	Amount Allowed.
78	W. C. Dille, watchman and assistant with horse and buggy.....		\$28.00
78	M. C. Skinner, ticket seller.....		18.00
79	J. O. McConnell, asst. supt. of gates.....		34.50
79	E. A. Montgomery, gateman.....		19.00
79	W. D. Douglas, gateman.....		15.00
79	W. D. Moffitt, gateman.....		15.00
79	J. J. Hartig, gateman.....		19.00
79	F. A. Carroll, gateman.....		15.00
79	E. T. Teitsworth, gateman.....		15.00
79	P. R. Stowess, gateman.....		15.00
79	Ed. Phillips, gateman.....		18.00
79	C. Johnson, gateman.....		18.00
79	S. V. Warren, gateman.....		18.00
79	E. H. Ellsworth, gateman.....		18.00
79	A. M. Webster, gateman.....		15.00
79	N. R. Bell, gateman.....		18.00
79	H. A. Tiffany, gateman.....		18.00
79	John Marvin, gateman.....		15.00
79	Willis Chambers, gateman.....		18.00
79	Oscar Becker, gateman.....		18.00
79	D. A. Perkins, gateman.....		18.00
79	F. F. Farrar, gateman.....		15.00
79	Wm. Patterson, gateman.....		15.00
79	N. Getchell, gateman.....		18.00
79	John Rogers, gateman.....		18.00
79	A. Bryant, gateman.....		18.00
79	E. Bryant, gateman.....		18.00
79	W. A. Trask, gateman.....		18.00
79	A. Nickerson, gateman.....		18.00
79	O. Buck, gateman.....		18.00
79	Wm. Cilly, gateman.....		18.00
79	E. A. Carroll, gateman.....		18.00
79	E. A. Carroll, counting tickets.....		1.00
79	M. D. Moffitt, counting tickets.....		1.00
79	F. F. Farrar, counting tickets.....		1.50
79	S. V. Warran, counting tickets.....		1.50
79	J. D. Mills, asst. supt.....		25.00
79	D. R. Houlton, supt. grand stand.....		18.00
80	A. M. Lowell, marshal.....		50.00
80	Geo. A. Copeland, police.....		21.00
80	L. M. Barrie, police.....		21.00
80	J. F. Austin, police.....		36.00
80	Robt. Broome, police.....		36.00
80	Henry Cormick, police.....		39.00
80	P. A. Campbell, police.....		21.00
80	Wm. Duren, police.....		21.00
80	Henry Eberhard, police.....		21.00
80	A. Farnette, police.....		21.00
80	Fred. Hesse, police.....		36.00
80	John E. Hubert, police.....		18.00
80	Theo. Johnson, police.....		21.00
80	Peter Koch, police.....		24.00
80	Ed. Mullany, police.....		27.00
80	Mars. Myland, police.....		9.00

LABOR ACCOUNTS AUDITED.— *Continued.*

Voucher No.	CLAIMANT AND SERVICES.	Amount Claimed.	Amount Allowed.
80	Owen McKenna, police.....		\$24.00
80	Casimer Miller, police.....		27.00
80	Louis Blomquist, police.....		9.00
80	John Bosman, police.....		3.00
80	Ed. Newman, police.....		21.00
80	John P. Newell, police.....		27.00
80	L. F. Palmer, police.....		24.00
80	J. Robertson, police.....		18.00
80	P. E. Raverty, police.....		21.00
80	Chas. Rimholdsen, police.....		21.00
80	P. J. Stamm, police.....		27.00
80	John Saur, police.....		24.00
80	P. H. Wemstock, police .....		27.00
80	Pat Cary, police.....		21.00
80	M. Schorn, police .....		24.00
80	E. F. Carney, police.....		18.00
80	M. Lyons, police.....		22.50
80	P. Conway, police.....		21.00
80	M. H. Shay, police .....		12.00
80	A. E. Sachse, detective.....		18.00
80	Thomas Keneely, detective.....		15.00
80	M. Daly, detective.....		15.00
80	D. L. Thorne, detective.....		15.00
80	Dan J. O'Connor, detective.....		15.00
80	J. M. Watts, police.....		9.00
80	Pat Powers, police.....		12.00
80	Robert Wentz, police.....		21.00
80	Chas. Ganger, police.....		24.00
80	A. M. Lowell, police .....		100.00
81	C. T. Rogers, clerk of race course.....		24.00



REPORT OF BILLS FOR MATERIAL, MERCHANDISE, ETC., PRESENTED AND AUDITED BY THE AUDITING COMMITTEE OF THE MINNESOTA STATE AGRICULTURAL SOCIETY, AT SUNDRY MEETINGS HELD DURING THE YEAR 1888.

Voucher No.	CLAIMANT AND SERVICES.	Amount Claimed.	Amount Allowed.
1 and 14	Isaac Staples, racing 1887.....	\$60.00	\$60.00
5	Brown, Treacy & Co., printing 1887 .....	14.45	14.45
15	Woodland Baptist Church, lumber, 1887 ...	7.50	7.50
13	H. E. Hoard, sundries, 1887.....	149.43	149.43
18	H. N. Leighton, improvement, 1886 .....	139.05	129.30
	H. E. Conklin, forage.....	5.74	5.74
	Northwestern Telephone Exchange Co., rent of telephone, 1887.....	20.00	10.00
	John F. Norrish, law suit expenses, 1887...	20.00	20.00
	Myers & Carpenter, silver cup, 1887.....	55.50	55.00
	Geo. D. Knox, special appropriation, 1887..	500.00	500.00
21	Geo. Drew, repairs, 1887.....	42.20	42.20
22	Geo. Drew, repairs.....	120.22	120.22
23	Meyers & Carpenter, medals, etc.....	50.43	50.43
24	D. W. Harper, hardware.....	11.60	11.60
25	Brooks Bros., lumber.....	160.86	160.86
26	Lockwood, Allard & Co., forage.....	18.48	18.48
	Geo. D. Knox, special appropriation, 1887..	250.00	250.00
28	Merchants Transfer, sprinkling, 1887.....	6.00	6.00
29	St. P. M. & M. Ry Co., relief of buffaloes, 1887.....	31.25	31.25
30	T. W. Ingersoll, photographs, 1887.....	10.00	10.00
31	American Express Co., charges, 1887.....	3.80	3.80
32	Joel P. Heatwole, printing, 1887.....	4.25	4.25
33	Harrison & Smith, printing.....	2.68	2.68
34	R. L. Polk & Co., directory.....	5.00	5.00
35	H. E. Hoard, postage.....	25.34	25.34
36	Budd Doble, racing, 1887.....	300.00	300.00
37-39	Northwestern Telephone Exchange Co., rent of telephone.....	50.00	50.00
38	Brooks Bros., lumber.....	20.42	20.42
40	Strong-Hacket Hardware Co.....	8.07	8.07
41	Dow Morrison, horse.....	165.00	165.00
43	John Farrell, forage.....	15.00	15.00
42	H. R. Gardner, racing, 1887.....	25.00	25.00
51	Lockwood, Allard, & Co., forage.....	42.82	42.82
60	C. L. Smith, evergreens.....	100.00	100.00
62	James Barrister, whitewashing.....	43.00	43.00
81	R. F. Jones, racing, 1887.....	40.00	40.00
82	Hunt & Price, balloon ascension.....	500.00	500.00
115	Miles & Hale, electricians.....	18.00	18.00
495	Nat. Sham Battle Association.....	6,963.05	6,963.05
497	W. S. Morton, base ball.....	100.00	100.00
498	Farwell, Ozmun, Kirk & Co., hardware....	32.91	32.91
499	Mast, Buford & Burwell Co., machinery and merchandise.....	100.40	100.40
500	Adam Decker, hardware.....	102.91	102.91
501	S. L. Sheldon & Co., repairs to Mower.....	11.35	11.35
502	Butt & Farnham, stationary.....	8.10	8.10



BILLS AUDITED — *Continued.*

Voucher No.	CLAIMANT AND SERVICES.	Amount Claimed.	Amount Allowed.
503	Smith & Smith, printing.....	19.50	19.50
504	Russell & Morgan, advertising and fair printing.....	112.50	112.50
505	Cossack & Co., advertising and fair printing.....	215.50	215.50
506	Baker Collins & Co., advertising and fair printing.....	3.50	3.50
507	J. M. Jones Stationary and Printing Co., tickets.....	168.50	168.50
508	The Horseman, advertising and printing.....	95.00	95.00
509	Western Bank Note Co., diplomas.....	450.00	450.00
510	Northwestern Telephone Exchange Co., rent of telephone.....	50.00	50.00
511	Price Condit Fence Co., fencing .....	56.36	56.36
512	H. R. Denny, postage.....	181.87	181.87
513	Northwestern Stamp Works, stamps .....	2.25	2.25
514	Janney, Semple & Co., hardware.....	3.39	3.39
515	American Trotting Association, annual dues and supplies.....	104.00	104.00
516	Northwestern Fuel Co., coal.....	130.50	130.50
517	St. P., M. & M. Ry. Co., freight charges ...	6.00	6.00
518	Adam Decker & Co., hardware .....	7.27	7.27
519	The Morris Iron & Steel Roofing Co.....	491.13	491.13
520	Chester Oil Co., oil.....	4.75	4.75
521	A. E. Melgreen, checks.....	24.00	24.00
522	Finch, Van Slyck & Co., blankets.....	43.75	43.75
523	Miles & Hale, electric bells, etc.....	10.00	10.00
524	John Matheis, pillows.....	7.00	7.00
525	Shickler & Wilson, cresting.....	148.60	148.60
526	Women's Christian Home, meals for police and firemen.....	18.00	18.00
527	Daytons Bluff Dining Hall, meals for police and firemen.....	81.00	81.00
528	Daniel Allen, cleaning closets.....	50.00	50.00
529	Forrestal Bros., sprinkling.....	15.00	15.00
530	Great Western Band, music.....	1,000.00	1,000.00
533	J. R. Jenkins, fire alarm box, etc.....	175.00	175.00
537	S. S. Eaton, insurance on pictures.....	186.00	186.00
538	Sterrett Ice Co., ice.....	20.00	20.00
539	Elmer & Marshall, painting.....	71.22	71.22
540	W. E. Coles & Son, painting.....	215.00	215.00
541	J. W. Stevens, architect, grand stand.....	100.00	100.00
542	Vincent DeGernon, art gallery expense.....	17.50	17.50
543	Dunton's Spirit of the Turf, advertising and printing.....	60.00	60.00
544	L. N. Scott, charge of amphitheatre.....	131.30	131.30
545	Wm. F. Cross, charge of races.....	88.50	88.50
548	Robinson & Cary, supplies.....	130.30	130.30
549	Lockwood, Allard & Co., forage.....	95.95	95.95
550	L. P. Plummer Post, benches .....	10.00	10.00
551	F. J. Wilcox, stationary.....	2.50	2.50
552	J. Cavanaugh, sawdust.....	5.00	5.00
553	Janney, Semple & Co., hardware.....	1.75	1.75
554	U. S. Wind & Engine Pump Co., supplies..	4.68	4.68

BILLS AUDITED—*Continued.*

Voucher No.	CLAIMANT AND SERVICES.	Amount Allowed.	Amount Claimed.
555	H. P. Rugg & Co., supplies.....	2.86	2.86
556	Blakemore & Angell, work in art gallery...	16.33	16.33
557	H. E. Hoard, postage.....	15.18	15.18
558	Lorenzo Hoyt, forage.....	8.43	8.43
559	Evening Journal, advertising and printing.	159.85	159.85
560	Star Printing Co., advertising and printing.	110.00	110.00
561	Svenska Folkets Tidning, advertising and printing.....	18.00	18.00
562	C. A. Dubois, advertising and printing.....	70.00	70.00
563	Daily Railway and Hotel News, advertising and printing.....	75.00	75.00
564	Northwestern Lumberman, advertising and printing.....	20.00	20.00
565	Brewer's Gazette, advertising and printing.	20.00	20.00
566	Farm, Stock and Home, advertising and printing.....	50.40	50.40
567	Volkszeitung, advertising and printing.....	50.00	50.00
568	Grocer, St. Paul, advertising and printing..	10.00	10.00
569	Der Wanderer, advertising and printing....	30.00	30.00
570	Commercial Bulletin, advertising and printing.....	10.00	10.00
571	Anoka Union, advertising and printing.....	12.00	12.00
572	Hemlandet, advertising and printing.....	10.00	10.00
573	Northwestern Presbyterian, advertising and printing.....	10.00	10.00
574	Exposition Programme, advertising and printing.....	50.00	50.00
575	Free Baptist, advertising and printing.....	7.50	7.50
576	Farm, Implements and Hardware, advertising and printing.....	10.00	10.00
577	Journal of Commerce, advertising and printing.....	20.00	20.00
578	Labor Union, advertising and printing.....	8.00	8.00
579	Irish Standard, advertising and printing....	8.00	8.00
580	Western Appeal, advertising and printing..	5.00	5.00
581	Opera House Program, advertising and printing.....	25.00	25.00
582	Methodist Herald, advertising and printing	10.00	10.00
583	Skaffaren, advertising and printing.....	8.00	8.00
584	Northwestern Prohibitionist, advertising and printing.....	7.00	7.00
585	The Herald, advertising and printing.....	10.00	10.00
586	Northwestern Chronicle, advertising and printing.....	15.00	15.00
587	Minnehaha Trotting Programme, advertising and printing.....	35.00	35.00
589	Geesaman & Murphy, advertising and printing.....	93.00	93.00
590	Fergus Falls Printing Co, advertising.....	20.00	20.00
591	J. W. Perry & Co., stereotypes.....	4.00	4.00
592	Northwestern Agricultural, advertising and printing.....	28.00	28.00
594	G. J. Grant, repairs, etc.....	997.82	997.82

BILLS AUDITED — *Concluded.*

Voucher No.	CLAIMANT AND SERVICES.	Amount Claimed.	Amount Allowed.
596	L. N. Scott, bill posting, printing and advertising.....	1,660.45	1,660.45
597	Wm. Rogers & Co., new work and repairs...	728.51	718.51
598	Meyers Hedian, art drayage.....	40.00	40.00
599	Brown, Treacy & Co., stationery.....	215.10	215.10
600	D. W. Harper, hardware.....	80.55	80.55
601	Finch, Van Slyck & Co., material for decorating.....	36.82	35.82
602	T. Simon, brooms.....	15.00	15.00
603	J. M. Russell, repairs to flags.....	40.00	40.00
604	Kent's Package Delivery, art drayage.....	100.00	100.00
605	The Scandinaven, advertising and printing	100.00	100.00
606	Pioneer Press Co., printing.....	825.25	825.25
	Pay roll of newspaper advertising paid by 159 checks, No. 373 to 532.....	2,198.81	2,198.81
	Merchants National Bank, note.....	24,500.00	24,500.00
	Merchants National Bank, interest on above note.....	1,507.06	1,507.06
	Merchants National Bank, interest on orders cashed.....	5.13	5.13
	Total.....		\$60,663.48

## RECAPITULATION OF CLAIMS ALLOWED ON BILLS AUDITED.

Grand army attractions.....	\$6,963 05
Music—Seibert and Danz bands.....	1,000 00
Special attractions.....	600 00
Newspaper advertising.....	3,375 56
Poster printing, stationery, etc.....	2,162 08
Agents and bill posters.....	1,604 90
Officers, superintendents and assistant superintendents.....	5,782 42
Police, judges, ticket sellers and gate keepers.....	2,270 62
Labor and board, current expense.....	3,441 33
Postage, freight, express, telegrams, etc.....	543 89
Fuel, oil and incidentals.....	1,791 28
Material, contracts, etc.—permanent improvements.....	3,150 75
Labor and board on permanent improvements....	1,434 88
Bank indebtedness, notes, interest and discounts.....	26,012 19
Premiums and awards.....	105 43
Race purses.....	435 00
	<b>\$60,663 48</b>

REPORT OF ACCOUNTS PAID WITHOUT BILLS HAVING BEEN  
AUDITED THEREFOR. PAID UPON ORDERS ISSUED UPON  
JUDGES REPORTS, CONTRACTS, REQUISITIONS, ETC.

CLAIMANT AND SERVICES.	Paid by Order No.	Amount.
John Bradford, Big Lake, Minn., premium, 1887.....	2616	\$25.00
Leonard Johnson, Northfield, premium, 1887.....	2617	75.00
De Lancey & De Lancey, Northfield, premium, 1887.....	2618	5.00
J. W. Morse & Son, Verona, Wis., premium, 1887.....	2619	14.00
Jacob Grassel, Rochester, Minn., premium, 1887.....	2620	20.00
F. A. Squires, Blue Earth City, premium, 1887.....	2621	19.00
N. J. Stubbs, Long Lake, premium, 1887.....	2622	3.00
Henry A. Lary, Maple Ridge, premium, 1887.....	2623	70.00
R. M. Dodd, purse winnings, 1888, on requisition.....	35	110.00
S. T. Kintz, purse winnings, 1888, on requisition.....	36	90.00
G. W. West, purse winnings, 1888, on requisition.....	37	300.00
G. C. Loomis, purse winnings, 1888, on requisition.....	38	150.00
P. Garrity, purse winnings, 1888, on requisition.....	40	250.00
Dell Barker, purse winnings, 1888, on requisition.....	41	160.00
H. Kelly, balance purse winnings, 1888, on requisition.....	42	390.00
Charles E. Smith, purse winnings, 1888, on requisition.....	43	90.00
C. M. Wilson, balance purse winnings, 1888, on requisition.....	44	900.00
W. J. Wadsworth, purse winnings, 1888, on requisition.....	45	70.00
Geo. C. Raymond, purse winnings, 1888, on requisition.....	46	100.00
Charles P. Gove, purse winnings, 1888, on requisition.....	47	37.50
A. J. Libby, purse winnings, 1888, on requisition.....	49	250.00
Fred B. Close, purse winnings, 1888, on requisition.....	53	110.00
C. F. Benson, purse winnings, 1888, on requisition.....	54	100.00
C. F. Burnside, purse winnings, 1888, on requisition.....	55	300.00
Geo. W. Farrar, purse winnings, 1888, on requisition.....	56	150.00
Ed. Stett, entrance money returned, on requisition.....	57	60.00
Geo. W. Graves, entrance money returned, on requisition.....	58	100.00
C. M. Clough, purse winnings, 1888, on requisition.....	59	300.00
F. C. Avery, purse winnings, 1888, on requisition.....	60	30.00
O. H. Rogers, purse winnings, 1888, on requisition.....	61	250.00
P. Devere, entrance money returned, on requisition.....	62	100.00
John Doud, purse winnings, 1888, on requisition.....	63	100.00
J. E. Cushing, purse winnings, 1888, on requisition.....	64	160.00
Ed. Richardson, purse winnings, 1888, on requisition.....	65	300.00
J. Cushing, entrance money returned, on requisition.....	66	20.00
C. B. Dickens, purse winnings, 1888, on requisition.....	72	150.00
Geo. W. Spear, purse winnings, 1888, on requisition.....	76	150.00
John Bradford, purse winnings, 1888, on requisition.....	79	50.00
A. C. Bruce, purse winnings, 1888, on requisition.....	81	500.00
Luke Keef, purse winnings, 1888, on requisition.....	83	30.00
E. Laird, purse winnings, 1888, on requisition.....	88	55.00
W. L. McGrath, purse winnings, 1888, on requisition.....	125	47.50
F. A. Seymour, purse winnings, 1888, on requisition.....	127	62.50
A. F. Waufle, purse winnings, 1888, on requisition.....	128	23.75
J. H. Burwell, purse winnings, 1888, on requisition.....	131	125.00
W. H. Gay, purse winnings, 1888, on requisition.....	134	62.50



REPORT OF ACCOUNTS PAID, ETC.—*Continued.*

CLAIMANT AND SERVICES.	Paid by Order No.	Amount.
Geo. W. Sherwood, purse winnings, 1888, on requisition.....	135	64.25
E. M. Richardson, purse winnings, 1888, on requisition.....	136	70.00
Pay roll, premiums and awards, 1888, vouchers and orders 156 to 253, 255 to 372, 674 and 676, judges reports.....	.....	10,868.74
Total.....		\$17,417.74

## RECAPITULATION—CLAIMS PAID ON REQUISITION, ETC.

Premiums and awards.....	\$11,049 74
Race purses.....	6,368 00
Total.....	\$17,417 74



## TREASURER'S REPORT FOR 1888.

*The Following is the Report of Frank J. Wilcox, Treasurer of the Minnesota State Agricultural Society, for the Fiscal Year Ending Dec. 10, 1888.*

## RECEIPTS.

1887.		
Dec. 10.	Balance on hand.....	\$3,152 91
1888.		
Jan. 10.	Membership fees.....	96 00
Jan. 20.	H. E. Hoard, entrance money.....	500 00
Mar. 1.	H. E. Hoard, entrance money.....	38 81
Mar. 1.	J. T. Ellwell, stabling and pasture.....	15 00
Mar. 1.	W. L. McGrath, life member.....	10 00
Aug. 7.	Special state appropriation .....	25,000 00
Aug. 7.	Annual state appropriation .....	4,000 00
July 10.	Southern Minnesota Fair Association, advertising 1887....	44 82
Sept. 10.	Ticket sales.....	703 75
Sept. 10.	J. F. Norrish, privilege money.....	608 00
Sept. 11.	H. R. Denny.....	1,654 75
Nov. 22.	H. R. Denny, privilege account.....	565 02
Nov. 22.	H. R. Denny, stall rent and pasture.....	229 50
Nov. 22.	H. R. Denny, sale of team.....	300 00
Nov. 22.	H. R. Denny, forage sold, by A. N. Johnson.....	374 06
Nov. 22.	H. R. Denny, suspensions American Trotting Association	50 00
Nov. 22.	H. R. Denny, commission, cattle sales.....	37 75
Nov. 22.	H. R. Denny, L. Johnson, forage bill.....	60 10
Nov. 22.	H. R. Denny, entrance money.....	50 00
Nov. 27.	H. R. Denny, stall rent and pasture, per W. F. Cross.....	195 00
Sept. 11.	Ticket sales.....	2,282 25
Sept. 11.	J. F. Norrish, privilege money.....	160 00
Sept. 12.	Ticket sales.....	3,064 75
Sept. 12.	H. R. Denny, entrance money.....	1,400 00
Sept. 13.	H. R. Denny, entrance money.....	1,050 00
Sept. 13.	J. F. Norrish, privileges.....	585 00
Sept. 13.	J. F. Norrish, privileges.....	250 00
Sept. 13.	Ticket sales.....	8,949 75
Sept. 14.	J. F. Norrish, privileges.....	455 00
Sept. 14.	J. F. Norrish, privileges.....	566 00
Sept. 14.	H. R. Denny, entrance money.....	450 00

Sept. 14.	Ticket sales.....	733 00
Sept. 14.	J. F. Norrish, privileges.....	75 00
Sept. 15.	Ticket sales.....	9,785 00
Sept. 15.	M. J. Myers, commission on cattle sales.....	15 25
Sept. 15.	J. F. Norrish, privileges.....	673 22
Sept. 15.	H. E. Hoard, entrance money.....	76 19
Sept. 15.	Ticket sales, Jobbers Union, Minneapolis .....	268 50
Sept. 15.	Ticket sales.....	13 25
Sept. 15.	J. F. Norrish, privileges.....	375 85
Sept. 15.	Railway ticket office sales.....	3,991 50
Sept. 17.	Ticket sales, office.....	47 25
Sept. 28.	W. R. Marshall, ticket sales .....	41 50
Sept. 28.	L. N. Scott, ticket sales .....	891 50
Sept. 28.	Minneapolis & St. Louis Railway, ticket sales.....	32 00
Oct. 9.	C. E. Rogers, ticket sales .....	1,934 50
Oct. 17.	Minneapolis & Sault Ste Marie.....	141 50
Oct. 17.	Minneapolis & St. Louis.....	484 00
Oct. 17.	Chicago, St. Paul & Omaha.....	1,052 50
Oct. 17.	Chicago, Milwaukee & St. Paul.....	1,244 50
Oct. 17.	Wisconsin Central.....	98 50
Oct. 17.	Northern Pacific.....	214 00
Oct. 17.	Manitoba .....	640 50
Oct. 17.	Chicago, St. Paul & Kansas City .....	259 50
Oct. 17.	Chicago, Burlington & Northern.....	55 50
Oct. 17.	Commission cattle sales, M. J. Myers.....	32 50
Oct. 17.	Ticket sales, St. Paul & Duluth Railway.....	249 50
Oct. 17.	Error in premiums 1887 .....	10 00
Oct. 17.	Ticket sales, J. H. Whittaker.....	138 50
Total credits .....		\$80,472 73

## DISBURSEMENTS.

2603	Leferbvre & Deslaurier, repairs art gallery.....	\$17 70
2604	Henry Feig, state board of auditors.....	44 80
2605	Otto E. Naegel, state board of auditors.....	37 50
2606	A. L. Bradford, state board of auditors.....	26 00
2607	Brown, Treacy & Co., printing bills.....	14 45
2608	H. F. Sanders, labor and board.....	11 00
2609	Woodland Park Baptist Church, material new improvement..	7 50
2610	Wm. Crawford, labor permanent improvement.....	4 00
2611	H. E. Hoard, entrance money returned.....	149 43
2612	H. E. Conklin, forage bought.....	5 74
2613	K. N. Guiteau, labor on books .....	30 00
2614	H. N. Leighton & Co., material permanent improvement.....	129 30
2615	Northwestern Telephone and Exchange Co., rent.....	10 00
2616	John Bradford, premium withheld .....	25 00
2617	Leonard Johnson, premium withheld.....	75 00
2618	De Lancey & De Lancey, premuim withheld.....	5 00
2619	J. W. Morse & Son, premium withheld.....	14 00

2620	Jacob Grassle, premium withheld.....	20 00
2621	F. A. Squires, premium withheld.....	19 00
2622	N. J. Stubbs, premium withheld.....	3 00
2623	Henry A. Lory, premium withheld.....	20 00
2624	John Cooper, services as manager 1886.....	250 00
2625	Myers & Carpenter, silver cups for premiums.....	55 00
2626	John Cooper, manager 1887.....	200 00
2627	Isaac Staples, purses.....	60 00
2628	Geo. D. Knox, special appropriation.....	500 00
2629	John F. Norrish, expenses in law suit.....	20 00
2630	Geo. Drew, repairs to house, team work 1887.....	42 20
2631	Geo. Drew, repairs main building, shoveling snow.....	120 22
2632	Myers & Carpenter, premiums and awards.....	50 43
2633	D. W. Harper, hardware for repairs.....	11 60
2634	Brooks Bros., material for new improvements.....	160 86
2635	Lockwood, Allard & Co., forage.....	18 48
2636	H. E. Hoard, wages of men.....	48 81
2637	E. G. Edwards, account Geo. Knox.....	250 00
2638	Budd Doble, special attraction.....	300 00
1	Merchants Transfer Co., labor.....	6 00
2	Treasurer St. Paul, Minneapolis & Manitoba, freight.....	31 25
3	T. W. Ingersoll, advertising and printing.....	10 00
4	American Express Co., postage, express and freight.....	3 80
5	Joel P. Heatwole, printing.....	4 25
6	Harrison & Smith, printing and advertising.....	2 68
7	H. R. Denny, office supplies.....	5 00
8	H. E. Hoard, postage.....	25 34
9	Northwestern Telephone Co., postage, express and freight.....	50 00
10	Brooks Bros., material for repairs.....	20 42
11	Strong-Hackett Hardware Co., material for repairs.....	8 07
12	Morrison, incidentals.....	165 00
13	H. R. Gardner, attraction.....	25 00
14	John Farrel.....	15 00
15	E. M. Newcomb, labor.....	18 00
16	Nathan Colman, labor on grounds.....	16 50
17	David Wilson, labor.....	6 75
18	Andrew Westlund, labor.....	7 50
19	Harry Johnson, labor.....	10 50
20	Michael Shetslad, labor.....	44 80
21	R. R. Russell, labor.....	30 00
22	Lockwood, Allard & Co.....	42 82
23	C. A. Schwartz, labor and repairs.....	66 80
24	John J. Anderson, labor.....	105 00
25	D. L. Billingsley, labor.....	239 64
26	John J. Anderson, labor.....	2 10
27	John Keys, board, labor.....	73 84
28	H. F. Sanders, board, labor.....	78 82
29	A. J. Libby, labor.....	11 75
30	H. E. Hoard, salary of superintendent.....	416 66

31	H. R. Denny, salary of secretary.....	1,041 66
32	C. L. Smith, evergreens.....	100 00
33	E. M. Lilliquist, labor on repairs.....	86 50
34	James Barrister, whitewashing repairs.....	43 00
35	R. M. Dodds, races.....	115 00
36	S. T. Kintz, races.....	90 00
37	G. W. West, races.....	300 00
38	G. C. Loomis, races.....	150 00
39	A. M. Lowell, police.....	50 00
40	P. Garrity, races.....	250 00
41	Dell Barker, races.....	160 00
42	H. Kelly, races.....	390 00
43	Charles E. Smith, races.....	90 00
44	C. M. Wilson, races.....	900 00
45	W. J. Wadsworth, races.....	70 00
46	Geo. C. Raymond, races.....	100 00
47	Chas. P. Gove, races.....	35 50
48	Wm. P. Cowles, carpenter.....	10 62
49	A. J. Libby.....	250 00
50	John Hood, labor on repairs.....	9 37
51	C. D. Giddings, superintendent of labor .....	48 00
52	M. T. Grattan, races.....	150 00
53	F. B. Close, races.....	110 00
54	C. F. Benson, races.....	100 00
55	E. T. Burnside, races.....	300 00
56	Geo. W. Farrier, races.....	150 00
57	Ed. Stett, entrance money refunded.....	60 00
58	Geo. W. Graves, entrance money refunded.....	100 00
59	C. M. Clough, races.....	300 00
60	F. C. Avery, races.....	30 00
61	O. H. Rogers, races.....	250 00
62	P. Deveny, entrance fee refunded.....	100 00
63	John Dowd, races.....	100 00
64	J. E. Cushing, races.....	160 00
65	Ed. Richardson, races.....	300 00
66	J. E. Cushing, entrance fee returned.....	20 00
67	Wm H. Taft, salary as judge.....	150 00
68	A. Q. Bergreen, labor.....	16 35
69	Rudolph Hanson, labor;.....	22 50
70	C. D. Giddings, superintendent of labor.....	4 00
71	Albert C. Herman, labor.....	43 65
72	C. B. Dickens, races.....	150 00
73	Hunt & Price, attractions, balloon.....	500 00
74	H. F. Sanger, labor.....	4 65
75	J. M. Lynn, labor.....	5 55
76	Geo. W. Spear, races.....	150 00
77	A. Long, assistant superintendent.....	27 00
78	L. H. Prosser, manager.....	150 00
79	John Bradford, races.....	50 00



80	H. H. Kattman, assistant superintendent.....	36 00
81	W. C. Bruce, races.....	500 00
82	Wm. Ahern, assistant superintendent.....	27 00
83	Luke Keef, races.....	30 00
84	M. O. Tousley, assistant superintendent.....	9 00
85	A. P. Jones, assistant superintendent.....	18 00
86	J. H. Makepeace, assistant superintendent.....	27 00
87	H. V. Poore, assistant superintendent of forage.....	30 00
88	E. Laird, races.....	55 00
89	John Gates, assistant superintendent division M.....	18 00
90	John Byers, assistant superintendent division A.....	60 00
91	Jacob Hanks, labor.....	51 15
92	Geo. M. Tousley, superintendent.....	100 00
93	Edw. Lindig, contract remove manure.....	120 00
94	John Goody, carpenter.....	120 00
95	Ed. Allen, labor.....	62 70
96	Aug. Carlson, labor.....	47 40
97	Geo. C. Allen, labor on repairs.....	31 25
98	Aug. Hogberg, labor on repairs.....	122 50
99	Olivier Gilkey, labor.....	19 50
100	Wm. Libby, labor.....	35 00
101	Henry Vollmer, labor.....	14 25
102	John Ryan, labor.....	12 80
103	Seive Powers, assistant superintendent art department.....	28 50
104	Geo. L. Trott, assistant superintendent art department.....	43 50
105	Charles R. Cross, labor.....	12 00
106	L. A. Normanden, assistant superintendent.....	35 75
107	Wm. Richter, assistant superintendent main building.....	22 50
108	Aug. Schmidt, assistant superintendent main building.....	45 00
109	W. W. Folsom, assistant superintendent art department.....	63 00
110	R. E. Olmstead, labor.....	1 25
111	Joseph Hemingway, assistant superintendent division A.....	18 00
112	R. Wilke, labor.....	28 00
113	J. J. Hartig, labor.....	31 55
114	Halfdon Harrison, labor.....	33 00
115	Miles & Hale, races, contract for stand.....	18 00
116	Andrew Brown, labor.....	31 50
117	John Cooper, pay roll gatekeepers.....	564 50
118	D. R. Houlton, gatekeeper.....	18 00
119	Samuel Johnson, labor.....	111 30
120	Miss Eliza Mayo, assistant superintendent.. ..	30 00
121	Miss Kate Mayo, assistant superintendent.....	30 00
122	Miss Alex. Dougan, assistant superintendent.....	30 00
123	Miss L. Pearce, assistant superintendent.....	27 00
124	E. F. Batters, assistant superintendent.....	38 00
125	W. L. McGrath, races.....	47 50
126	Capt. A. M. Lowell, police pay roll.....	1,007 50
127	F. A. Seymour, races.....	62 50
129	J. V. Wilson, labor.....	22 75



131	J. H. Burwell, races .....	125 00
132	R. T. Jones, races .....	40 00
133	C. F. Rogers, clerk of course .....	24 00
134	Wm. H. Gray, races .....	62 50
135	Geo. W. Sherwood, races .....	64 25
136	E. M. Richardson, races .....	70 00
140	Aug. Nelson, labor .....	64 75
141	Daniel Anderson, labor .....	63 95
142	James Larson, labor .....	68 55
143	Aug. Nelson, labor .....	10 00
144	Daniel Anderson, labor .....	10 00
145	Michael Jensen, labor .....	44 55
146	C. A. Schwartz, labor .....	92 95
147	John Keyes, board of laborers .....	93 34
148	Harry Johnson, carpenter .....	176 24
149	A. Harrison, carpenter .....	190 43
150	Peter Blumer, labor .....	12 00
151	Edw. Lindig, labor .....	8 10
152	Henry Sharring, labor .....	16 13
153	Geo. Gerlack, labor .....	10 00
154	Alfred Anderson, labor .....	22 25
155	R. R. Russell, labor .....	24 00
156	C. D. Andrews, premiums .....	15 00
157	Jere Allis, premiums .....	608 00
158	Mrs. Jennie Anderson, premiums .....	14 00
159	John Bradford, premiums .....	135 00
160	A. C. Bruce, premiums .....	43 00
161	Wm. Blowers, premiums .....	190 00
162	J. H. & W. R. Bowman, premiums .....	25 00
163	H. J. Brown, premiums .....	20 00
164	Bowles, Haddon & Co., premiums .....	15 00
166	Geo. Baker & Son, premiums .....	109 00
167	P. D. Brockway, premiums .....	63 00
168	J. R. Brabazon, premiums .....	22 00
169	Peter Becker, premiums .....	3 00
170	J. R. Brabazon, premiums .....	71 00
171	C. H. Belding, premiums .....	112 00
171	N. S. Beardsley, premiums .....	8 00
173	H. Berry, premiums .....	34 17
174	J. G. Bachellor, premiums .....	31 10
175	O. H. Bradbury, premiums .....	13 00
176	Eugene Bishop, premiums .....	20 00
177	Mrs. B. Beveridge, premiums .....	30 00
178	Mrs. F. S. Baldwin, premiums .....	10 00
179	Mrs. S. J. Barlow, premiums .....	8 00
180	Mrs. M. E. Breeder, premiums .....	10 00
181	Mrs. M. A. Bigford, premium .....	2 00
182	N. P. Clarke, premiums .....	1,039 00
183	C. H. Chadbourn, premiums .....	14 72

184	A. A. Crane, premiums.....	76 00
185	John Cronn, premiums.....	30 00
186	J. G. Cass, premiums.....	42 00
187	Mrs. Clarke Chambers, premiums.....	3 00
188	Robt. L. Deakin, premiums.....	35 00
189	Samuel Deering, premiums.....	15 00
190	Edw. DeCoster, premiums.....	5 00
191	F. L. & J. L. DeLancey & Co., premiums.....	266 00
192	Alfred A. Day, premiums.....	37 00
193	G. F. Davis & Co., premiums.....	116 00
195	Henry Davis, premiums.....	33 00
195	Rakel Dyskerland, premiums.....	4 00
196	Mrs. D. C. Davis, premium.....	2 00
197	Miss Dougan, premiums.....	4 00
198	Mrs. A. Deslaurier, premiums.....	3 00
195	O. J. Evans, premiums.....	35 00
200	James Edwards, premiums.....	10 00
201	J. C. Easton, premiums.....	66 00
202	Mrs. Rhys T. Evans, premiums.....	14 72
203	Freisland Live Stock Co., premiums.....	60 00
204	Mrs. M. Flegle, premiums.....	27 00
205	Robert Fairweather, premiums.....	10 00
206	Mrs. J. B. Fish, premiums.....	12 00
207	Galbraith Bros., premiums.....	155 00
208	J. C. Gray, premiums.....	10 00
209	E. S. Gillette, premiums.....	15 00
210	Gilfillan & Murray, premiums.....	124 00
211	G. E. Gordon, premiums.....	108 00
212	Jacob Grassle, premiums.....	69 00
213	Hasson Valley Creamery Co., premiums.....	29 70
214	Miss E. O. Gibbs, premium.....	1 00
215	E. J. Gates, premiums.....	33 00
216	Mrs. R. H. Gray, premiums.....	3 00
217	Mrs. E. M. Gardner, premium.....	1 00
218	P. G. Bass, premiums.....	11 00
219	M. Belle Barton, premium.....	2 00
220	Wm. Boettcher, Jr., premiums.....	35 00
221	Sydney Carp, premiums.....	19 00
222	D. J. Chowen, premiums.....	5 00
223	E. H. S. Dartt, premiums.....	35 00
224	Ditus Day, premiums.....	10 00
225	Francis Dick, premiums.....	38 00
226	Mrs. C. W. Gordon, premiums.....	4 00
227	F. H. Gibbs, premiums.....	6 00
228	Miss E. O. Gibbs, premiums.....	4 00
229	C. H. Greenman, premiums.....	10 00
230	J. T. Grimes, premium.....	1 00
231	A. Harrington, premiums.....	39 00
232	Geo. Harding, premiums.....	88 00

233	Frank Harding, premiums.....	24 00
234	H. F. Hulster, premiums.....	3 00
235	F. D. Holmes, premiums.....	101 10
236	Mrs. Lonzo Hoyt, premiums.....	5 00
237	Nettie Huntington, premiums.....	5 00
238	Mrs. E. H. Hill, premiums.....	82 00
239	Mrs. B. L. Harding, premiums.....	5 00
240	Mrs. Haskell, premiums.....	4 00
241	Miss E. M. Hauenstein, premiums.....	4 00
242	Chas. Hawkinson, premiums.....	14 00
243	J. S. Harris, premiums.....	21 00
244	Mrs. M. A. Pearce, premiums.....	33 00
245	J. W. Hart, premiums.....	6 00
246	Nicholas Humes, premiums.....	30 00
247	Lonzo Hoyt, premiums.....	6 00
248	Miss R. V. Hoyt, premiums.....	3 00
249	Miss Margurite Hoyt, premium .....	2 00
250	M. Olive Hazzard, premiums.....	3 00
251	E. F. Irwin, premiums.....	98 00
252	F. A. Seymour, premiums.....	300 00
253	W. H. Jacobs, premiums.....	210 00
255	A. F. Jones, premiums.....	82 00
256	John E. Johnson, premiums.....	5 00
257	Rudolph Knapheide, premiums.....	53 00
258	C. J. Krames, premiums.....	13 00
259	Jacob Klein, premiums.....	5 00
260	Mrs. D. L. Kingsbury, premiums.....	20 00
261	Jay La Due, premiums.....	35 00
262	W. J. Levitt, premiums.....	84 72
263	C. Le Visconte, premiums.....	352 00
264	S. Leslie, Waseca, premiums.....	176 43
265	Mrs. M. H. Lamb, premiums.....	41 00
266	Wm. Lyons & Son, premiums.....	10 00
267	Frank A. Leavitt, premiums.....	15 24
268	Laura Fountain Creamery Co., premiums.....	23 90
269	Clyde Loomis, premiums.....	3 00
270	H. J. Ludlow, premiums.....	5 00
271	A. W. Latham, premiums.....	55 00
272	Miss Julia Lyons, premiums.....	100 00
273	Miss Martha Lyons, premiums.....	5 00
274	John Lyons, premiums.....	72 00
275	Mrs. Mary Litzen, premiums.....	3 00
276	J. B. Merrett, premiums.....	45 00
277	John McPherson, premiums.....	10 00
278	Wm. Meis & Son, premiums.....	23 00
279	W. H. Maes Live Stock Co., premiums.....	43 00
280	A. B. Mathews, premiums.....	208 00
281	J. W. Morse & Son, premiums.....	148 00
282	M. J. Myers, premiums.....	288 00

283	J. H. McKibbons, premiums.....	122 00
284	Jas. Murray, premiums.....	9 00
285	Mathewson Bros., premiums.....	122 00
286	J. S. Macomber & Co., premiums.....	28 00
287	F. C. McKinstrey, premiums.....	63 00
288	McCullom & Suffle, premiums.....	20 00
289	Mrs. Julia A. Marsh, premium.....	1 00
290	Miss Kate Marsh, premium.....	2 00
291	Miss K. N. Mayo, premiums.....	3 00
292	Mendenhall greenhouse, premiums.....	62 00
293	L. L. May, premiums.....	71 00
294	G. W. Nelson, premiums.....	15 00
295	W. C. Nichols & Son, premiums.....	29 00
296	Northfield Creamery Co., premiums.....	45 85
297	New Ulm Creamery Co., premiums.....	56 05
298	Miss Norrish, premiums.....	3 00
299	Miss Carrie Nagle, premiums.....	20 00
300	Pope and Stevens County Breeders Association, premiums...	105 00
301	Felix Petoguin, premiums.....	5 00
302	Hugh Paul, premiums.....	163 00
303	T. N. Porter, premiums.....	73 00
304	M. K. Prine & Son, premiums .....	104 00
305	G. W. Plank, premiums.....	110 00
306	C. G. Pride, premiums.....	35 50
307	W. L. Parker, premiums.....	28 00
308	O. A. Powell, premiums.....	9 00
309	Andrew Peterson, premiums.....	13 00
310	L. W. Pettijohn, premiums.....	18 00
311	Pat Quinlan, premiums.....	3 00
312	M. Richardson, premiums.....	15 00
313	Reid Bros., premiums.....	35 00
314	W. C. Read, premiums.....	15 00
315	C. McReeves, premiums....	118 00
316	R. W. Robinson, premiums.....	7 00
317	W. W. Robinson, premiums .....	3 00
318	G. P. Ritt, premiums.....	10 00
319	Mrs. E. F. Runge, premiums .....	19 00
320	Ida H. Kelly, premiums.....	8 00
321	Mrs. C. E. Rogers, premiums.....	3 00
322	S. D. Richardson, premiums.....	10 00
323	Mrs. F. A. Rogers, premiums.....	9 00
324	Seth S. Kenny, premiums .....	60 00
325	W. G. Stoner, premiums .....	10 00
326	Spaulding & Moffatt, premiums.....	58 00
327	W. G. Sawyer, premiums.....	109 00
328	Steele, Martin Bros. & Co., premiums.....	83 00
329	W. F. Seymour, premiums.....	37 00
330	H. W. Stone & Co., premiums.....	141 00
331	F. A. Squires & Son, premiums .....	197 00



332	Luke Stannard, premiums.....	65 00
333	C. D. Smith, premiums.....	65 00
334	C. G. Spaulding, premiums.....	39 43
335	Wm. Strobel, premiums.....	26 67
336	Josephine Sterrett, premiums.....	39 00
337	Miss May Stimble, premiums.....	38 00
338	Mrs. C. D. Smith, premiums.....	10 00
339	Mrs. F. W. Smith, premiums.....	4 00
340	Mrs. S. S. Stetson, premiums.....	2 00
341	Mrs. J. N. Snow, premiums.....	2 00
342	Wm. Sommerville, premiums.....	83 00
343	Rolla Stubbs, premiums.....	3 00
344	Mrs. Gaylord Sexton, premiums.....	37 00
345	C. L. Smith, premiums.....	27 00
346	Miss Jessie Schuman, premiums.....	15 00
347	Mrs. G. W. Schuman, premiums.....	7 00
348	Ernest Smith, premiums.....	4 00
349	P. C. Sherron, premiums.....	24 00
350	Mrs. F. G. Sterrett, premiums.....	3 00
351	Grace and Lizzie Smith, premiums.....	38 00
352	Schuman & Co., premiums.....	157 00
353	Mrs. S. K. Tracy, premium.....	1 00
354	Mrs. D. H. Tease, premiums.....	5 50
355	A. G. Tuttle, premiums.....	72 00
356	Wm. Toole, premiums.....	9 00
357	John Vasatka, premiums.....	39 00
358	Aug. Westerson, premiums.....	55 00
359	Woodbury, premiums.....	10 00
360	F. M. Watson, premiums.....	25 00
361	J. C. Wade, premiums.....	10 00
362	Wilcox & Liggett premiums.....	53 00
363	C. B. Wilkinson, premiums.....	28 72
364	Luther Weir, premiums.....	20 00
365	Mrs. Weed, premiums.....	8 00
366	Mrs. G. S. Worden, premiums.....	2 00
367	Mrs. F. J. Wilcox, premiums.....	5 00
368	Aug. Wittman, premiums.....	64 00
369	Mrs. A. M. P. Whittier, premiums.....	4 00
370	Maarie F. Watson, premiums.....	20 00
371	P. C. Younker, premiums.....	14 72
372	John Zelch, premiums.....	109 00
373	Pioneer Press, advertising and printing.....	370 66
374	The Globe, advertising and printing.....	340 80
375	The Dispatch, advertising and printing.....	204 60
376	Daily News, advertising and printing.....	138 80
377	Minneapolis Tribune, advertising and printing.....	264 45
378	Argyle Banner, advertising and printing.....	5 00
379	Albert Lea Enterprise, advertising and printing.....	7 00
380	Ada Index, advertising and printing.....	5 00



381	Austin Democrat, advertising and printing.....	6 00
382	Ashby Farmer, advertising and printing.....	7 00
383	Aitkin Age, advertising and printing.....	6 00
384	Albert Lea Standard, advertising and printing.....	7 00
385	Alexandria News, advertising and printing.....	6 00
386	Anoka Union, advertising and printing.....	7 00
387	Anoka Herald, advertising and printing.....	6 00
388	Ada Herald, advertising and printing.....	3 00
389	Belle Plain Herald, advertising and printing.....	6 00
390	Balaton Journal, advertising and printing.....	6 00
391	Benson Monitor, advertising and printing.....	6 00
392	Benson Times, advertising and printing.....	7 00
393	Beaver Creek Graphic, advertising and printing.....	5 00
394	Brainerd Tribune, advertising and printing.....	7 00
395	Breckenridge Mercury, advertising and printing.....	6 00
396	Brainerd Dispatch, advertising and printing.....	6 00
397	Beaver Falls Times, advertising and printing.....	6 00
398	Brainerd Journal, advertising and printing.....	7 00
399	Breckenridge Gazette, advertising and printing.....	6 00
400	Brown's Valley Inter-Lake Tribune, advertising and printing	5 00
401	Brownsville News, advertising and printing.....	5 00
402	Caledonia Argus, advertising and printing.....	4 00
403	Cloquet Industrial Vidette, advertising and printing.....	4 00
404	Currier Pioneer, advertising and printing.....	4 00
405	Crookston Journal, advertising and printing.....	6 00
406	Cokato Observer, advertising and printing.....	5 00
407	Chatfield Democrat, advertising and printing.....	6 00
408	Cambridge Press, advertising and printing.....	7 00
409	Canby News, advertising and printing.....	5 00
410	Preston Times, advertising and printing.....	6 00
411	Dodge Centre Times, advertising and printing.....	4 00
412	Dodge Centre Record, advertising and printing.....	6 00
413	Delavan Herald, advertising and printing.....	5 00
414	Delano Eagle, advertising and printing.....	5 00
415	Dawson Sentinel, advertising and printing.....	6 00
416	Detroit City Record, advertising and printing.....	5 00
417	Duluth Democrat, advertising and printing.....	9 00
418	East Grand Forks Courier, advertising and printing.....	3 00
419	Elbow Lake Herald, advertising and printing.....	5 00
420	Evansville Enterprise, advertising and printing.....	5 00
421	Elk River Star News, advertising and printing.....	6 00
422	Ellsworth News, advertising and printing.....	5 00
423	Fairmont News, advertising and printing.....	7 00
424	Fairhaven Circular, advertising and printing.....	4 00
425	Farmington Tribune, advertising and printing.....	7 00
426	Fergus Falls Ugeblad, advertising and printing.....	5 00
427	Faribault Republican, advertising and printing.....	7 00
428	Glencoe Central Minnesotian, advertising and printing.....	5 00
429	Granite Falls Tribune, advertising and printing.....	6 00

430	Gaylord Hub, advertising and printing.....	4 00
431	Grand Meadow Record, advertising and printing.....	4 00
432	Graceville Transcript, advertising and printing.....	5 00
433	Glencoe Enterprise, advertising and printing.....	6 00
434	Glyndon Red River Valley News, advertising and printing....	5 00
435	Hokah Chief, advertising and printing.....	4 00
436	Houston Signal, advertising and printing.....	5 00
437	Henderson Independent, advertising and printing.....	6 00
438	Heron Lake News, advertising and printing.....	5 00
439	Hastings Gazette, advertising and printing.....	6 00
440	Hokah Sun, advertising and printing.....	5 00
441	Hutchinson Leader, advertising and printing.....	5 00
442	Granite Falls Journal, advertising and printing.....	6 00
443	Janesville Argus, advertising and printing.....	4 00
444	Jackson Republic, advertising and printing.....	6 00
445	Kasson Republican, advertising and printing.....	6 00
446	Lake Benton News, advertising and printing.....	3 00
447	Litchfield News Leader, advertising and printing.....	6 00
448	Lanesboro Journal, advertising and printing.....	6 00
449	Lake City Graphic Sentinel, advertising and printing.. ..	6 00
450	Litchfield Review, advertising and printing.....	5 00
451	Lac qui Parle Independent, advertising and printing.....	6 00
452	Le Roy Independent, advertising and printing.....	5 00
453	Le Sueur News, advertising and printing .....	6 00
454	Litchfield Independent, advertising and printing.....	6 00
455	Little Falls Democrat, advertising and printing.....	6 00
456	Luverne Herald, advertising and printing.....	6 00
457	Lake Park Record, advertising and printing.....	5 00
458	Mankato der Minnesota Beobachter, advertising and printing.	5 00
459	Morris Tribune, advertising and printing.....	7 00
460	Mankato Register, advertising and printing.....	6 00
461	Mankato Free Press, advertising and printing.....	7 00
462	Mankato Review, advertising and printing.....	6 00
463	Moorhead News, advertising and printing.....	7 00
464	Morris Sun, advertising and printing.....	6 00
465	Mabel Enterprise, advertising and printing.....	5 00
466	Morton Enterprise, advertising and printing.....	5 00
467	Madison Press, advertising and printing.....	6 00
468	Mora Times, advertising and printing.....	6 00
469	Motley Register, advertising and printing.....	5 00
470	Mankato Democrat, advertising and printing.....	7 00
471	Northfield News, advertising and printing.....	7 00
472	North St. Paul Sentinel, advertising and printing.....	7 00
473	New Richland North Star, advertising and printing.....	6 00
474	New Ulm Review, advertising and printing.....	5 00
475	Otter Tail County Farmer, advertising and printing.....	7 00
476	Ortonville Headlight, advertising and printing.....	5 00
477	Ortonville Herald Star, advertising and printing.....	5 00
478	Owatonna Journal and Herald, advertising and printing.....	7 00

479	Paynesville News, advertising and printing.....	3 00
480	Paynesville Press, advertising and printing.....	3 00
481	Princeton Union, advertising and printing.....	7 00
482	Pine City Pioneer, advertising and printing.....	5 00
483	Plainsview News, advertising and printing.....	6 00
484	Pine Island Journal, advertising and printing.....	5 00
485	Perham Bulletin, advertising and printing.....	6 00
486	Pipestone Star, advertising and printing.....	6 00
487	Preston Republican, advertising and printing.....	6 00
488	Rochester Herald, advertising and printing.....	4 00
489	Rushford Star, advertising and printing.....	5 00
490	Redwood Falls Review, advertising and printing.....	6 00
491	Red Lake Falls Gazette, advertising and printing.....	3 00
492	Red Wing Argus, advertising and printing.....	7 00
493	Rochester Democrat, advertising and printing.....	7 00
494	Red Lake Falls News, advertising and printing.....	5 00
486	Red Wing Republican and Advance Sun, advertising and printing.....	11 00
496	St. Charles Times, advertising and printing.....	5 00
497	Springfield advance, advertising and printing.....	4 00
498	Stillwater Post, advertising and printing.....	6 00
499	St. Peter Herald, advertising and printing.....	6 00
500	Shakopee Courier, advertising and printing.....	6 00
501	Slayton Gazette, advertising and printing.....	6 00
502	Shakopee Post, advertising and printing.....	6 50
503	St. James Journal, advertising and printing.....	6 00
504	St. Cloud Times, advertising and printing.....	6 00
505	Sauk Rapids Free Press, advertising and printing.....	5 00
506	Shakopee Argus, advertising and printing.....	6 00
507	St. Charles Union, advertising and printing.....	6 00
508	St. Cloud Journal Press, advertising and printing.....	7 00
509	St. Hilaire Spectator, advertising and printing.....	5 00
510	Sleepy Eye Herald, advertising and printing.....	7 00
511	Spring Valley Vidette, advertising and printing.....	7 00
512	Sherburne Advance, advertising and printing.....	4 00
513	Tyler Journal, advertising and printing.....	6 00
514	Taylor Falls Journal, advertising and printing.....	6 00
515	Tracy Trumpet, advertising and printing.....	6 00
516	Verndale Journal, advertising and printing.....	6 00
517	Winona Herald, advertising and printing.....	7 00
518	Waconia News, printing and advertising.....	5 00
519	Warren Register, printing and advertising.....	5 00
520	Winona Adler, printing and advertising.....	5 00
521	Wadena Pioneer, printing and advertising.....	6 00
522	Waseca Herald, printing and advertising.....	7 00
523	Wadena Tribune, printing and advertising.....	6 00
524	White Bear Lake Breeze, printing and advertising.....	5 00
525	Waseca Radical, printing and advertising.....	6 00
526	Windom Citizen, printing and advertising.....	5 00



527	Waterville Advance, printing and advertising.....	6 00
528	Windom Reporter, printing and advertising.....	5 00
529	Winnebago City Press News, printing and advertising.....	7 00
530	Worthington Advance, printing and advertising.....	7 00
531	Winthrop News, printing and advertising.....	3 00
532	Zumbrota News, printing and advertising.....	6 00
533	Benjamin Morse, labor.....	45 00
534	Magnus Peterson, labor.....	20 00
535	Chas. Erickson, labor.....	8 75
536	W. H. Lafsoon, labor.....	33 60
537	James W. Lynn.....	3 75
538	Wm. De Gray.....	5 70
539	John Larson.....	64 50
540	Pat Quinlan.....	130 72
541	R. R. Russell.....	15 00
542	Geo. Hawley.....	4 35
543	James Spellman.....	8 70
544	W. H. Wood.....	15 00
545	Ole N. Nelson.....	25 00
546	Mrs. W. P. Jewett.....	9 00
547	Mrs. L. W. French.....	9 00
548	Mrs. Madge M. Dyke.....	9 00
549	Mrs. L. P. Walsingham.....	12 00
550	A. S. Brisbane.....	75 00
551	W. J. Taylor.....	64 50
552	E. G. Chrisman.....	55 50
553	H. Sharring.....	61 50
554	Miss Minnie Sharring.....	12 00
555	Vincent De Guernon.....	150 00
556	Arthur Eagan.....	115 00
557	Alex. Chambert.....	6 75
558	Andrew Brown.....	45 00
559	B. J. Taland.....	6 75
560	Col. Wm. M. Liggett.....	30 00
561	C. E. Rogers, secretary sham battle attraction.....	6,918 05
562	Samuel Partridge, assistant secretary.....	250 00
563	W. S. Morton, base ball attraction.....	100 00
564	Farwell, Ozmun, Kirk & Co., material.....	32 91
565	Mast, Buford, Burwell & Co., tools and implements.....	100 40
566	Adam Decker & Co., material for repairs.....	102 91
567	S. L. Sheldon, repairs.....	11 35
568	Butt & Farnham, stationery.....	8 10
569	Smith & Smith, printing.....	19 50
570	Russell & Morgan Printing Co., printing.....	112 50
571	Cosack & Co., printing.....	215 50
572	Baker, Collins & Co., printing.....	3 50
573	J. M. Jones Stationery & Printing Co., printing.....	168 50
574	The Horseman, advertising.....	95 00
575	Western Bank Note Co., printing.....	450 00

576	Northwestern Telephone Co., telephone, postage, etc.....	50 00
577	Price-Condit Fence Co., repairs.....	56 36
578	H. R. Denny, postage express and freight.....	181 87
579	Northwestern Stamp Co., stationery.....	2 25
580	Janney, Semple & Co., material for repairs.....	3 39
581	American Trotting Association, incidentals.....	104 00
582	Northwestern Fuel Co., fuel and oil.....	130 50
583	St. Paul, Minneapolis & Manitoba Railway Co., freight.....	6 00
584	Adam Decker & Co.....	7 27
585	Moies Iron Roofing Co., material for improvements.....	491 13
586	Chester Oil Co., oil.....	4 75
587	A. E. Melgreen, incidentals.....	24 00
588	Finch, Van Slyck & Co., incidentals.....	43 75
589	Miles & Hale, electric bells.....	10 00
590	John Matheis, incidentals.....	7 00
591	Shickler & Wilson, repairs.....	148 60
592	Mrs. C. M. Van Duzee, meals for special police.....	18 00
593	Dayton's Bluff Dining Hall, meals for firemen.....	81 00
594	Daniel Allen, labor on grounds.....	50 00
595	Forrestal Bros., labor.....	15 00
596	Geo. Seibert, music.....	1,000 00
597	Wm. Rodgers, assistant superintendent.....	68 00
598	L. Wallace, judge.....	11 00
599	J. R. Jenkins, material for new improvements.....	175 00
600	E. A. Commings, judge.....	48 00
601	Col. F. M. Wood, auctioneer.....	119 30
603	S. S. Eaton, insurance on paintings.....	186 00
604	Sterrett Ice Co., incidentals.....	20 00
605	Elmer & Marshall, material, labor and repairs.....	71 22
606	W. E. Coles & Son, labor on repairs.....	215 00
607	J. W. Stevens, labor on repairs.....	100 00
608	Vincent De Gernon, superintendent art department.....	17 50
609	Dunton's Spirit of the Turf, advertising.....	60 00
610	L. N. Scott, labor.....	131 30
611	W. F. Cross, races.....	88 50
612	John Keys, labor.....	28 50
613	W. F. Sanders, labor.....	48 00
614	Frank Gunderman, labor.....	46 50
615	W. H. Libby, labor.....	8 75
616	F. W. Terry, assistant superintendent.....	96 00
617	Geo. W. Taylor, assistant secretary.....	105 00
618	John E. Impey, clerk, secretary's office.....	30 00
619	Thos. Scott, assistant superintendent.....	30 00
620	Robinson & Cary, motive power.....	130 30
622	Lockwood, Allard & Co., feed.....	95 95
623	L. P. Plummer Post, material for improvements.....	10 00
624	F. J. Wilcox, stationery and office supplies.....	2 50
625	J. Kavanagh, incidentals.....	5 00
626	Janney, Semple & Co., material.....	1 75



627	United States Wind, Engine & Pump Co., material.....	4 68
628	H. P. Rugg & Co., material.....	2 86
629	B. Angell, labor and material.....	16 33
630	H. E. Hoard, postage.....	15 18
631	Lorenzo Hoyt, feed.....	8 43
632	Evening Journal, advertising.....	159 85
633	Star Printing Co., advertising.....	110 00
634	Svenska Folkets Tidning.....	18 00
635	C. H. Dubois, advertising.....	70 00
636	Daily Railway and Hotel News, advertising.....	75 00
637	Northwestern Lumberman, advertising.....	20 00
638	Brewers Gazette, advertising.....	20 00
639	Farm, Stock & Home, advertising.....	50 40
640	Volkszeitung, advertising.....	50 00
641	Grocer, advertising.....	10 00
642	Der Wanderer, advertising.....	30 00
643	Commercial Bulletin, advertising.....	10 00
644	Anoka Union, advertising.....	12 00
645	Hemlandet, advertising.....	12 00
646	Northwestern Presbyterian, advertising.....	10 00
647	Exposition Program, advertising.....	50 00
648	Free Baptist, advertising.....	7 50
649	Farm Implements and Hardware, advertising.....	10 00
650	Journal of Commerce, advertising.....	20 00
651	Labor Union, advertising.....	8 00
652	Irish Standard, advertising.....	8 00
653	Western Appeal, advertising.....	5 00
654	L. N. Scott, advertising.....	25 00
655	Methodist Herald, advertising.....	10 00
656	Skaffaren, advertising.....	8 00
657	Northwest Prohibitionist, advertising.....	7 00
658	Herold, Minneapolis, advertising.....	10 00
659	Northwestern Chronicle, advertising.....	15 00
660	Minnehaha Trotting Program, advertising.....	35 00
662	W. A. Gates, superintendent.....	100 00
663	S. W. Emery, superintendent.....	100 00
664	Dell Lowell, messenger.....	13 50
665	Jacob Hanks, labor.....	24 00
667	Geesaman & Murphy, advertising.....	93 00
668	Fergus Falls Printing Co., advertising.....	20 00
669	J. W. Perry & Co., printing.....	4 00
661	W. F. Cross, salary.....	750 00
670	Northwestern Agriculturist, advertising.....	28 00
671	C. M. Schultz, superintendent advertising.....	300 00
672	G. J. Grant, repairs, grand stand.....	997 82
673	L. N. Scott, bill posting and printing.....	1,660 45
674	A. K. Barnum, premiums.....	15 00
676	Galbraith Bros., premiums.....	5 00
677	W. Rogers & Co., improvements and repairs.....	728 51

*678	Myers & Hodian, express, art department.....	40 00
679	Brown, Treacy & Co., stationery and printing.....	215 10
680	D. W. Harper, material for improvements.....	80 55
681	Finch, Van Slyck & Co., material for improvements.....	36 82
682	T. Simon, tools and implements.....	15 00
683	J. M. Rosselle, repairs.....	40 00
684	Scandinaven, advertising.....	100 00
685	A. H. Kent, drayage, art department.....	100 00
686	Pioneer Press, advertising.....	825 25
128	A. M. Waufle, purses.....	23 75
130	R. R. Russell, assistant superintendent.....	45 00
	Note at Merchants National Bank, St. Paul.....	24,500 00
	Interest on above note .....	1,507 06
	Interest on orders cashed at Merchants National Bank.....	5 13
687	Treasurer's pay roll of ticket sellers.....	370 00
Total debits.....		\$78,036 22
Cash to balance .....		2,436 51
		<u>\$80,472 73</u>

STATEMENT OF RECEIPTS OF MINNESOTA STATE AGRICULTURAL SOCIETY  
DEC. 10, 1887, TO DEC. 10, 1888.

Balance on hand as per report.....	\$3,152 91
Error in order for premiums for 1887 .....	10 00
Membership fees, annual.....	\$96 00
Membership fees, life, W. L. McGrath.....	10 00
	<u>\$106 00</u>
State appropriations, special .....	\$25,000 00
State appropriation, annual.....	4,000 00
	<u>\$29,000 00</u>
Southern Minnesota Fair Association, advertising, 1887..	44 82
H. E. Hoard, entrance fees for 1887.....	\$500 00
H. E. Hoard, entrance fees for 1887.....	38 81
H. E. Hoard, entrance fees for 1887.....	76 19
	<u>\$615 00</u>

Ticket sales.....	\$703 75	
Ticket sales.....	2,282 25	
Ticket sales.....	3,064 75	
Ticket sales.....	8,949 75	
Ticket sales.....	733 00	
Ticket sales.....	9,785 00	
Ticket sales.....	268 50	
Ticket sales.....	13 25	
Ticket sales.....	3,991 50	
Ticket sales.....	47 25	
Ticket sales.....	41 50	
Ticket sales.....	891 50	
Ticket sales.....	32 00	
Ticket sales.....	1,934 50	
Ticket sales.....	141 50	
Ticket sales.....	484 00	
Ticket sales.....	1,052 50	
Ticket sales.....	1,244 50	
Ticket sales.....	98 50	
Ticket sales.....	214 00	
Ticket sales.....	640 50	
Ticket sales.....	259 50	
Ticket sales.....	55 50	
Ticket sales.....	249 50	
Ticket sales.....	138 50	
	<hr/>	\$37,317 00
J. T. Elwell, stabling and pasture, 1887 .....		15 00
Commission on cattle sales, M. J. Myers.....	\$15 25	
Commission on cattle sales, M. J. Myers.....	32 50	
	<hr/>	\$47 50
J. F. Norrish, privileges.....	\$608 00	
J. F. Norrish, privileges.....	160 00	
J. F. Norrish, privileges.....	585 00	
J. F. Norrish, privileges.....	250 00	
J. F. Norrish, privileges.....	455 00	
J. F. Norrish, privileges.....	566 00	
J. F. Norrish, privileges.....	75 00	
J. F. Norrish, privileges.....	673 22	
J. F. Norrish, privileges.....	375 85	
	<hr/>	\$3,748 07

H. R. Denny, not itemized.....	\$1,654 75	
H. R. Denny, privilege account.....	565 02	
H. R. Denny, stall rent and pasture.....	229 50	
H. R. Denny, stall rent and pasture.....	195 00	
H. R. Denny, sale of team.....	300 00	
H. R. Denny, forage sold.....	374 06	
H. R. Denny, forage sold.....	60 10	
H. R. Denny, suspensions American Trotting Associa- tions.....	50 00	
H. R. Denny, commission on cattle sales.....	37 75	
H. R. Denny, entrance money.....	50 00	
H. R. Denny, entrance money.....	1,400 00	
H. R. Denny, entrance money.....	1,050 00	
H. R. Denny, entrance money.....	450 00	
		<hr/>
		\$6,416 18
Total receipts.....		<hr/>
		\$80,472 73

## SUMMARY OF TREASURER'S REPORT, DEC. 10, 1887, TO DEC. 10, 1888.

Balance on hand Dec. 10, 1887.....	\$3,152 91	
Error in premiums for 1887.....	10 00	
Membership fees.....	106 00	
State appropriation, annual.....	4,000 00	
State appropriation, special.....	25,000 00	
Southern Minnesota Fair Association, advertising for 1887.....	44 82	
H. E. Hoard, entrance money, 1887.....	615 00	
J. T. Elwell, stabling and pasture, 1887.....	15 00	
Ticket sales.....	37,317 00	
J. F. Norrish, privileges.....	3,748 07	
Commission on cattle sales.....	47 75	
H. R. Denny, secretary, commission on cattle sales.....	37 75	
H. R. Denny, secretary, entrance money.....	3,422 00	
H. R. Denny, secretary, suspensions collected.....	50 00	
H. R. Denny, secretary, privileges, grounds.....	933 25	
H. R. Denny, secretary, privileges, pools.....	565 02	
H. R. Denny, secretary, stall rent and pasturage.....	674 00	
H. R. Denny, secretary, forage report, A. M. Johnson.....	574 06	
H. R. Denny, secretary, forage bill, Leonard Johnson.....	60 10	
H. R. Denny, secretary, sale of team.....	300 00	
		<hr/>
Total receipts.....		\$80,472 73
		<hr/>
Total disbursements.....		\$78,036 22
Balance on hand.....		<hr/>
		2,436 51
		<hr/>
		\$80,472 73

## STATEMENT OF PROPERTY BASED UPON PRESENT VALUES.

Two hundred acres of land at \$2,000 per acre.....	\$400,000 00
Main building.....	25,115 00
Grand stand.....	22,100 00
Stock barns (12).....	29,000 00
Horse stables (7).....	6,665 51
Machinery hall.....	6,100 00
Machinery sheds.....	12,400 00
Dairy buildings.....	3,000 00
Sheep sheds (4).....	1,200 00
Hog sheds (2).....	500 00
Poultry house.....	750 00
Office building.....	7,500 00
Art gallery.....	12,000 00
Water works.....	10,100 00
Fences.....	6,600 00
Agricultural hall.....	4,500 00
Dining hall.....	2,500 00
Fountain.....	1,375 00
Carriage exhibit building.....	3,842 00
Judges and reporters' stand.....	475 00
Farm barn, granary, etc.....	2,500 00
Miscellaneous buildings and race track.....	10,000 00
Personal property.....	4,057 27
Cash in hands of treasurer.....	2,391 01
Amounts due treasurer.....	1,115 39
	<hr/>
	\$575,786 18



COUNTY AND DISTRICT AGRICULTURAL SOCIETIES.

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The failure on the part of many of the officers of county and district agricultural societies to send in annual reports to the secretary of the state agricultural society renders it impossible to make anything like a full report of the condition of those societies. The proper blanks were sent to the officers of all the societies asking for statements of matters of interest, but only twenty-nine have responded for the year 1888. It would seem that a subject of such paramount importance to the communities in which these societies are located demanded favorable consideration at the hands of those charged with their management in the matter of annual reports in some form. The publication of a brief summary of the proceedings and exhibits of the valuable organizations, in the annual report of the state society, would tend to exert a good influence throughout the state, and awaken a lively spirit of rivalry which can not otherwise be obtained. So far as received, the reports compare favorably with those of previous years.

The following tabulated statement, with "additional remarks," contains the information of general interest to be found in the last report of the county and district societies. It includes the name of the society, number of members, date and place of the fair of 1887, amount of money received from the state and from all other sources, the amount paid out in premiums, purses, improvements of grounds, and other current expenses:

## FINANCIAL REPORT OF THE COUNTY AND DISTRICT AGRI

NAMES OF SOCIETIES.	Active Mem- bers.	Dates of Fairs, 1887.	Location Where Held.
Anoka County Agricultural Society.....	110	Sept. 6, 7, 8.....	Anoka .....
Big Stone County Agricultural Society.....	131	Sept. 30, Oct. 1....	Ortonville.....
Blue Earth County Agricultural Society.....	114	Sept. 6, 7, 8.....	Garden City.....
Brown County Agricultural Society.....	100	Sept. 19, 20, 21....	New Ulm.....
Carver County Agricultural Society.....	100	Sept. 22, 23, 24....	Carver.....
Central Minnesota Fair Association.....	30	Sept. 27, 28, 29, 30.	St. Cloud.....
Hubbard Co. & Shell Prairie Agricultural Society	68	Sept. 7 and 8.....	Park Rapids.....
Kittson County Agricultural Society.....	43	Oct. 11 and 12.....	St. Vincent.....
Chisago & Pine Counties Agricultural Society....	100	Sept. 16 and 17....	Rush City.....
Clay County Agricultural Society.....	26	Oct. 4, 5, 6.....	Glyndon.....
Crow Wing County Agricultural Society.....	405	Sept. 9 and 10.....	Brainerd.....
Dodge Co. Agricultural and Mechanical Ass'n....	316	Sept. 20, 21, 22, 23.	Kasson.....
Faribault County Agricultural Society.....	200	Oct. 3, 4, 5.....	Blue Earth City....
Faribault County Agr'l and Joint Stock Society.	43	Sept. 29, 30, Oct. 1.	Winnebago City....
Isanti County Agricultural Society.....	152	Sept. 21, 22, 23....	Cambridge.....
Lac qui Parle County Agricultural Society.....	110	Sept. 21, 22, 23....	Madison.....
Le Sueur County Agricultural Society.....	116	Sept. 26 to 29.....	Le Sueur.....
Martin County Agricultural Society.....	43	Sept. 26 to 29.....	Fairmont.....
Murray County Agricultural Society.....	50	Sept. 29, 30, Oct. 1.	Currie.....
Nicollet County Agricultural Society.....	30	Sept. 7 and 8.....	St. Peter.....
Nobles County Agricultural Society.....	35	Sept. 28 and 29....	Worthington.....
Renville County Agricultural Society.....	29	Oct. 4, 5, 6.....	Hector.....
Rock County Agricultural Society.....	35	Sept. 7, 8, 9.....	Shakopee.....
Scott County Agricultural Society.....	68	Sept. 6 and 7.....	Morris.....
Stevens County Agricultural Society.....	76	Sept. 20 to 22....	Long Prairie.....
Todd County Agricultural Society.....	76	Sept. 20, 21, 22, 23.	Mankato.....
Southern Minnesota Live Stock and Fair Ass'n..	76	Sept. 6, 7, 8, 9....	Howard Lake.....
Wright County Agricultural Society.....	76	Sept. 6, 7, 8, 9....	Howard Lake.....
Totals.....	2,430		

## CULTURAL SOCIETIES OF MINNESOTA FOR THE YEAR 1887.

Received from State.	Received from all Other Sources.	Total Receipts.	Paid for Premiums.	Paid for Purse.	Paid for Improvement of Grounds.	Paid for all Other Expenses.	Total Expenses Paid.
\$218.21	\$898.78	\$1,116.99	\$270.00	\$102.99	\$478.56	\$278.50	\$1,131.70
.....	365.67	365.67	197.75	.....	.....	161.75	359.50
218.21	358.19	576.40	367.07	25.00	.....	184.33	576.40
218.21	476.14	694.35	496.00	.....	66.47	208.41	770.88
218.21	334.73	552.94	300.75	32.50	28.17	190.50	551.92
218.00	2,440.51	2,658.51	2,236.50	.....	.....	735.52	2,972.02
218.00	73.00	291.00	219.30	.....	55.97	12.73	291.00
218.21	329.62	590.33	316.50	28.00	.....	224.89	569.39
200.00	468.55	663.55	365.25	.....	259.43	431.20	1,055.88
218.21	983.00	1,201.21	416.00	100.00	353.70	411.25	1,180.95
222.18	510.08	732.26	241.00	.....	.....	480.00	721.00
218.21	1,285.05	1,507.26	485.00	347.50	689.98	284.78	1,807.26
218.21	674.61	892.82	310.25	300.00	.....	252.12	862.37
218.22	1,213.56	1,431.78	450.00	250.00	.....	393.56	1,268.56
218.21	58.60	277.81	233.75	.....	15.47	44.09	293.31
218.21	2,099.52	2,317.73	379.25	391.40	383.69	1,041.41	2,195.75
218.00	410.52	628.52	220.50	113.10	.....	278.90	612.50
218.21	993.47	1,211.68	366.50	315.00	229.87	283.81	1,205.68
218.20	616.99	834.20	635.30	.....	3.50	189.85	823.65
218.21	258.49	476.70	349.00	.....	13.75	169.00	529.75
218.21	330.91	549.12	277.25	.....	.....	196.02	473.27
218.64	152.75	371.79	289.34	.....	.....	146.89	436.23
.....	.....	2,520.48	337.00	185.00	1,097.38	116.89	1,736.27
218.21	432.21	650.42	223.00	.....	.....	492.90	715.90
218.21	139.18	357.39	253.50	.....	.....	76.80	284.30
218.21	506.37	724.58	313.75	154.00	102.55	153.88	724.58
218.22	1,420.87	1,639.09	615.00	322.00	.....	702.09	1,639.09
218.21	763.14	981.35	345.30	300.00	.....	492.77	1,138.07
\$5,659.03	\$23,492.50	\$26,820.13	\$9,489.81	\$2,966.49	\$2,081.49	\$8,731.84	\$26,981.88

## REMARKS.

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### *Anoka County Agricultural Society.*

The value of the fair ground property as shown by the report, is \$13,000; indebtedness, \$2,629.71; showing present net worth of society to be \$10,370.39.

### *Big Stone County Agricultural Society.*

This society has twenty acres of land, which cost, at \$15 per acre, \$300. The total resources of the society are \$306.17; indebtedness, \$185; leaving a balance of assets of \$111.17.

### *Blue Earth County Agricultural Society.*

The report shows a membership of one hundred and thirteen, and no assets. The secretary adds, that in that respect the report resembles the United States treasury under Buchanan's administration.

### *Brown County Agricultural Society.*

This society has a membership of one hundred and fourteen, and shows a balance of assets of \$694.27.

### *Carver County Agricultural Society.*

The society has one hundred active members. The receipts for the year, \$552.94, all of which was expended.

### *Central Minnesota Fair Association.*

This society shows a balance in its favor of \$1,196. The grounds are rented, so that the society has no real estate. The membership is not given.

*Hubbard County and Shell Prairie Agricultural Society.*

The society has permanent improvements, not including land, one hundred and sixty-five dollars, and a surplus of one hundred and forty-five dollars.

*Kittson County Agricultural Society.*

This county makes a very good showing; has a membership of sixty-eight, and a small sum in the treasury.

*Chisago and Pine County Agricultural Society*

Has a membership of forty-three and assets of \$412.66. The society is on a good footing.

*Clay County Agricultural Society.*

This Society has a membership of 100, and the report indicates that it is in a healthy condition. It has real estate valued at \$750, and a surplus of \$1,795.26.

*Crow Wing County Agricultural Society.*

There is no report of premiums and awards from this society, but the fair of 1887 left a small balance in the treasury. The net worth of the society is \$2,011.26.

*Dodge County Agricultural and Mechanical Association.*

This is a large society, having four hundred and three members. The present net worth of the society is \$1,274.98, and it appears to be in a prosperous condition.

*Faribault County Agricultural Society.*

In good condition as per report; present membership, three hundred and sixteen; present worth of society, \$1,714.46.

*The Faribault County Agricultural and Joint Stock Society*

Shows a balance on hand of \$163.22.

*Isanti County Agricultural Society.*

"Isanti county has not been settled much over thirty years, and languished for want of railroad facilities. It is well adapted for general farming, and through the St. Paul & Duluth railroad



it has the three best markets in the state at its door, Duluth, St. Paul and Minneapolis. The soil is generally a sandy loam, but in the northern part of the county it is a clay loam, with a heavy growth of hard wood. There were not enough bread-stuffs raised twenty-five years ago in the county to supply its wants, but now the export of wheat alone is up in the hundreds of thousands. The chief sales are in corn, the soil being warm, and quick results are obtained from its cultivation. Creameries and cheese factories are also being established and in the near future large sales will be realized. A large per cent of the people are Scandinavians, citizens who have changed the appearance of portions of the country by draining the marshes, which make splendid meadows. Land can be bought from three to five dollars per acre and each one hundred and sixty acres has wood enough for use and rails for fencing. Lakes abound in all directions. There are churches and schools, and society is of the best, morally and religiously; taxes light and no standing debts. The roller mills at the county seat can use all the surplus wheat around."

*The Lac qui Parle County Agricultural Society.*

The report shows quite an interest in stock raising, and the society has \$705.35 to its credit.

*Le Sueur County Agricultural Society.*

The society is about even, financially, and has a membership of one hundred and ten.

*Martin County Agricultural Society.*

The society has \$2,000 worth of real estate and a large membership, and is in a flourishing condition.

*Murray County Agricultural Society.*

"This county, situated at the head waters of the Des Moines river, is mostly prairie, with a black rich loam and clay subsoil; the climate is fine, not much different from that of Northern Iowa; county well watered by lakes and streams, and good water is found at a depth of 20 to 30 feet. There is a large body of timber around Lake Shetek and Bear Lake. Buildings are generally frame, the lumber costing \$16 to \$18 per thousand. The county has two flourishing mills, and enjoys the advantage of

three railways, giving direct markets to Chicago, Milwaukee and St. Paul. The vacant lands are situated principally in the eastern, western and southern parts of the county, and range in price from \$7 to \$12 per acre. The towns of Currie, Fulda and Slayton have graded schools; there are 64 organized school districts in the county, and churches in all villages."

*Nicollet County Agricultural Society*

Has a balance on hand and is generally prosperous.

*Nobles County Agricultural Society.*

This society made a good exhibit, and has a surplus of \$75.85.

*Renville County Agricultural Society.*

This Society came out in debt, paying seventy-five per cent..

*Rock County Driving Park and Fair Association.*

"In June last we purchased forty acres of land, built a track, stables, and hall, fenced the grounds and made other improvements."

*Scott County Agricultural Society.*

The society owns real estate valued at \$1,200, but with some liabilities appears to have but \$44.13 as net worth of the society. The entries of cattle and horses make a good showing.

*Stearns County Agricultural Society.*

This society has real estate valued at eight hundred dollars and a present net surplus of \$387.09. The number of entries at last fair make a good showing.

*Todd County Agricultural Society*

Has real estate valued at four hundred dollars, and a present net worth of \$1,076.62.

*Southern Minnesota Live Stock and Fair Association.*

The association appears to be in a flourishing condition. In a note the secretary says: "The city of Mankato purchased the ground that the association has been using and paying rent for,

for a Public Park and the association has turned over personal property to the city for the nominal sum of \$750, the property amounting to about \$5,000, the city granting use of grounds and buildings for fair purposes in the future for the association."

*Wright County Agricultural Society.*

The county has permanent improvements valued at five hundred dollars, and a surplus, as present net worth of society, of \$343.28. The number of entries, at least, shows that the society is prospering.

BIENNIAL REPORT  
OF THE  
STATE BOARD OF AUDITORS  
OF THE  
STATE AGRICULTURAL SOCIETY  
TO THE LEGISLATURE.

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*To the Honorable the Legislature of the State of Minnesota:*

The undersigned board, created by virtue of section 4, chapter 181, of the General Laws of 1887, would respectfully submit to your honorable body the following report of the financial transactions of the State Agricultural Society, covering the period from Dec. 11, 1886, to Dec. 10, 1888:

The first meeting of the board was held from Jan. 6 to Jan. 10, 1888, at which time we received and audited the accounts of the said society for the fiscal year ending Dec. 10, 1887, as shown by the annual reports of the secretary and treasurer of said society. We found, upon thorough investigation, the said reports of the secretary and treasurer to be reliable, excepting the amount of two outstanding orders for \$10 and \$15.25 respectively, of which outstanding orders there was no record in possession of the secretary, owing to which he was unable to report on the same. This board at that time recommended to the State Agricultural Society the adoption of by-laws which would effectively prevent a re-occurrence of such differences, by keeping a reliable record of all unpaid and outstanding orders.

We further called the attention of the public to the financial progress and prosperity of the society during the fiscal year ending Dec. 10, 1887. The society was thereby put in a position financially to pay up all its indebtedness excepting the sum of



\$25,214.50, which it would be able to meet on receiving the special appropriation of the legislature of 1887, amounting to \$25,000, together with its other reliable resources; and that when once out of debt we are of the opinion that the society should become self-sustaining and get along without further aid from the state.

The fact that no official bond had been executed by either the secretary or the treasurer of the society was duly brought to the attention of the society, and the adoption of suitable by-laws has, we believe, resulted in preventing such omission.

Both the secretary and treasurer have executed good and sufficient bonds for the year 1888, although the recommendation regarding a record of all outstanding orders has as yet apparently not been complied with. We now renew our recommendation in this respect.

We would further recommend to the legislature the amendment of the law of 1887 governing the State Agricultural Society to this effect: That the secretary shall make duplicates of all pay rolls and report sheets of the society; also, that all records pertaining to the society, or bearing on any of its financial transactions, shall by him be turned over to his respective successor.

This will enable the different secretaries to keep a more systematic record of the business of the society.

New by-laws for the society were submitted to this board at the meeting held Jan. 10, 1888.

These were, upon due deliberation, approved of by the board, but we now learn that section 10 of said by-laws, governing the compensation of the board of managers, was not adopted as approved of by this board. The board of managers, at a meeting held Jan. 17, 1888, adopted a substitute for said section 10, making the compensation of the members of the board of managers two hundred and fifty dollars per annum and "mileage expenses." This substitute, in an official communication to the society by this board, has now been approved, provided the indefinite language of said substituted section, owing to which the board of managers now claim both mileage and other expenses, be so amended so as to exclude the payment of any expenses further than the salary of two hundred and fifty dollars per annum and mileage.

We also in said communication suggested and recommended the amendment of section 6 of the said by-laws, which appar-



ently conflicts with the provisions of section 10 relating to the compensation of the officers and employes of the society. A careful review of the financial transactions of the society for the past two years leads us to believe that the same has now assumed a safe standing financially, and with a good patronage of its fairs by the public will soon stand in the first rank of state fairs. The receipts for the year ending Dec. 10, 1888, were \$23,472.98 less than in 1887.

This is partly accounted for by a limited fair of only six days, while in 1887 the fair continued for eight days, and also by rainy weather on the fifth day of the fair.

Despite the decreased receipts the society has paid up all of its indebtedness excepting estimated liabilities of about \$3,600, for the payment of which there are abundant resources available to the society.

All indebtedness of the society for permanent improvements having been paid up, it is the opinion of this board that the society should henceforth be self-sustaining and get along without further aid from the state, excepting the annual appropriation of \$4,000.

The secretaries of the society have been of much aid and assistance to the board of auditors in auditing the various accounts of the society, which is duly appreciated by the board.

We now append for the consideration of your body and in compliance with section 4, chapter 181, of the General Laws of 1887, the following detailed statement of the financial transactions of the State Agricultural Society for the two years ending Dec. 10, 1888.

RECEIPTS FOR THE FISCAL YEAR ENDING DEC. 10, 1887.

Balance on hand.....	\$896 55
Tickets sold and membership.....	55,975 75
Privileges, pools and commissions.....	6,677 77
Entrance money, fines and suspensions.....	9,832 50
Stable rent.....	1,181 04
Hay and forage sold.....	382 10
Annual state appropriation.....	4,000 00
Special state appropriation.....	25,000 00
Total receipts.....	<u>\$103,945 71</u>

## DISBURSEMENTS FOR THE FISCAL YEAR ENDING DEC. 10, 1887.

Premiums and awards.....	\$10,001 80
Race purses and race attractions.....	15,237 50
Special attractions, sham battle.....	13,438 75
Newspaper advertising, printing, stationery, bill posting, agents, etc.....	6,156 57
Officers, superintendents and assistant superintendents.....	7,153 78
Police, judges, ticket sellers and gatekeepers.....	2,320 15
Labor and board, current expense.....	2,779 54
Postage, freight and express.....	831 08
Fuel, oil and incidentals.....	1,858 90
Expenditures for contracts, material, implements, furniture, machinery, on account of permanent improvement.....	12,030 66
Orders issued previous years.....	27 23
Bank indebtedness and interest .....	24,946 84
Balance on hand.....	3,152 91
Total disbursements.....	\$103,945 71

## RESOURCES.

Cash in hands of treasurer.....	\$3,152 91
Amount due on suspensions and entrance fees.....	995 00
Amount due rent of race track.....	200 00
Amount due stable rent.....	15 00
Amount due sundry accounts.....	44 82
Amount due special state appropriation .....	25,000 00
Amount due annual state appropriation.....	4,000 00
Total resources.....	\$33,407 73

## LIABILITIES.

Bank indebtedness (principal) .....	\$24,500 00
Interest on same at 6 per cent from Aug. 4, 1887.....	514 50
Outstanding claims (estimated).....	200 00
Total liabilities.....	\$25,214 50
Cash and credits over liabilities.....	8,193 23

## RECEIPTS FOR THE FISCAL YEAR ENDING DEC. 10, 1888.

Balance on hand.....	\$3,152 91
Membership fee (annual).....	96 00
Membership fee (life).....	10 00
State appropriation (special).....	25,000 00
State appropriation (annual).....	4,000 00
Error in order for premium.....	10 00
H. E. Hoard, entrance fees for 1887.....	615 00
Southern Minnesota Fair Association.....	44 82

Ticket sales.....	\$37,317 00
Stabling and pasturage.....	15 00
Commission on cattle sales.....	47 75
Privileges.....	3,748 07
H. R. Denny, secretary, not itemized.....	6,416 18
Total receipts.....	<u>\$80,472 73</u>

## DISBURSEMENTS FOR THE FISCAL YEAR ENDING DEC. 10, 1888.

Premiums and awards.....	11,049 74
Races.....	\$6,835 00
Bills and attractions.....	16,811 23
Advertising and bill posting.....	5,954 26
Officers—superintendents and assistant superintendents.....	8,053 04
Labor and board.....	3,320 76
Bank indebtedness.....	24,500 00
Interest on same.....	1,512 19
Balance on hand.....	2,436 51
Total disbursements.....	<u>\$80,472 73</u>

## RESOURCES.

Cash in hands of treasurer .....	\$2,436 51
Cash from sundries in hands of secretary.....	243 00
Amount due for rent of race track.....	200 00
Amount due for stall and pasturage (estimated).....	* 175 00
Amount due for sale of forage, checks in hands of secretary.....	45 70
Amount due suspensions 1887.....	41 19
Amount due suspensions 1888.....	340 00
Annual state appropriation.....	4,000 00
Entrance fee for races.. .....	90 00
Total resources.....	<u>\$7,571 40</u>

## LIABILITIES.

Unpaid salaries of officers, superintendents and managers.....	\$2,575 00
Race purse.....	50 00
Newspaper advertising (estimated).....	60 00
Sundries (estimated).....	250 00
For further payment to G. D. Knox, injured in sham battle in 1887.....	750 00
Total liabilities.....	<u>\$3,685 00</u>
Cash and credits over liabilities.....	<u>\$3,886 40</u>

## PROPERTY AND LIABILITY ACCOUNT.

*Submitted by H. R. Denny, Secretary.*

## PROPERTY.

Two hundred acres of land, @ \$2,000 per acre.....	\$400,000 00
Main building.....	25,115 00
Grand stand.....	22,100 00
Twelve stock barns.....	29,000 00
Seven horse stables....	6,665 61
Machinery hall.....	6,100 00
Machinery sheds.....	12,400 00
Dairy building.....	3,000 00
Four sheep sheds.....	1,200 00
Two hog sheds.....	500 00
Poultry house.....	750 00
Office building.....	7,500 00
Art gallery.....	12,000 00
Water works.....	10,100 00
Fences.....	6,600 00
Agricultural hall .....	4,500 00
Dining hall.....	2,500 00
Fountain .....	1,375 00
Carriage exhibit building.....	3,842 00
Judges' and reporters' stand.....	475 00
Farm barn, granary, etc.....	2,506 00
Miscellaneous buildings and race track .....	10,000 00
Personal property as per inventory.....	4,057 27
Cash in hands of treasurer.....	2,177 01
Amount due treasurer.....	1,082 39
Total.....	<u>\$575,539 18</u>

## LIABILITIES.

Surplus account, present worth.....	\$575,539 18
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All of which is respectfully submitted.

ST. PAUL, Dec. 15, 1888.

A. R. MCGILL,  
O. E. NAEGELE,  
HENRY FEIG,  
A. S. BRADFORD,  
*Board of Auditors.*

ST. PAUL, Dec. 13, 1888.

*To the Board of Managers of the State Agricultural Society:*

The board of auditors of the State Agricultural Society would respectfully invite your attention and consideration to the following suggested amendments to the by-laws of the society, and the approval thereof under certain conditions. The suggested amendments, if agreed to and adopted by your board, will at any time thereafter be approved of by this board.

The substitute for section 10 of the by-laws of the State Agricultural Society, adopted by the board of managers Jan. 17, 1888, and to go into effect on approval of the state board of auditors, is approved by this board upon the following condition: That said section 10 be amended as follows—by striking out the word “expenses” where the same occurs in line 4 of said section 10.

The board of auditors, in order to remedy an apparent conflict between the provisions of section 6 and section 10 of the by-laws of the State Agricultural Society, adopted Jan. 17, 1888, would recommend the amendment of section 6 of said by-laws as follows: By adding after the word “employees” in line 17 of said section 6, the words “elected or appointed by the president, vice presidents or board of managers.”



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GEOLOGICAL AND NATURAL HISTORY SURVEY OF MINNESOTA.

N. H. WINCHELL, STATE GEOLOGIST.

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BULLETIN No. 5.

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NATURAL GAS IN MINNESOTA.

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BY N. H. WINCHELL.

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ST. PAUL:  
THE PIONEER PRESS COMPANY.  
1889.

Vol. III—127.



# NATURAL GAS IN MINNESOTA.

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## A HISTORY OF FACTS, AND A STATEMENT OF GEOLOGICAL PRINCIPLES.

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The great discoveries of gas in Pennsylvania and more recently in Ohio and Indiana, and in other places in the United States, have had their natural effect in Minnesota. They have caused a feverish and sometimes an expressed feeling of unrest, and of curiosity to know what would be the result in case a careful probing of the earth's crust were undertaken. They have caused a re-examination of old records, and a restatement of all the nearly forgotten incidents which occurred years ago which could be interpreted as indications of natural gas at numerous places in the state. They have sharpened the observation of all well-drillers and others who in any way could be considered to be in situations such as might reveal evidences of escaping gas. The human eye-sight, the sense of smell, the love of lucre, the knowledge of geology, the ignorance of all geologists, have received a sudden and very general popular increment. These have had their influence on our Legislature. This is all very natural and not at all blameworthy. The demand for public expenditure in search for the hidden resources of the state, when the commonwealth in general is interested in the enterprise, is a demand that should be heeded by legislators. It is one of the distinguishing marks of American civilization that the people are willing to tax themselves for the promotion of public improvements and for scientific research. The people in general are more intimately acquainted with as well as more profoundly interested in the prosecution of scientific research, and the economic results of such research, than in other civilized countries.



This general impulse toward economic geology in Minnesota resulted in the passage of the following law by the Legislature of 1887.

AN ACT TO EXTEND THE WORK OF THE GEOLOGICAL AND NATURAL HISTORY  
SURVEY OF THE STATE.

*Be it enacted by the Legislature of the State of Minnesota.*

SECTION 1. It shall be the duty of the state geologist to make practical and actual tests by drilling or digging or other excavations in the earth such as he shall deem best suited to accomplish the purpose of this act for the discovery of any of the hidden mineral resources of the state, such as iron, copper, silver, gold, coal, gas, coal oil, common salt or any other valuable material that he may deem likely to exist in any of the rock strata of this state.

SECTION 2. In determining the localities at which such testing and exploring shall be done he shall be guided by such geological facts as he may possess or obtain, which may indicate the existence of any of the substances which it is the purpose of this act to discover. He shall also be guided by the proportionate amount of money that the owner or owners of the land on which such explorations may be proposed shall contribute to pay the cost of such exploration.

SECTION 3. It shall be the duty of the state geologist to report at once to the board of regents all discoveries either of economic or scientific interest to the state that may be made by such testing and exploration. Each report shall be published by the board of regents in the same manner as now provided for the publication of the annual reports of the geological and natural history survey of the state, and shall be paid for out of the same fund. *Provided*, that any important mineral discoveries or other scientific contribution to the geological and natural history survey that the said state geologist may deem necessary for immediate publication, shall not be suppressed until the regular report of the board of regents, but shall be issued from time to time under the direction of said state geologist.

SECTION 4. That the sum of five thousand (5,000) dollars for the year A. D. one thousand eight hundred and eighty-seven (1887) and the sum of five thousand (5,000) dollars for the year A. D. one thousand eight hundred and eighty-eight (1888) is hereby appropriated out of any moneys not otherwise appropriated for the purpose of defraying the expenses of said tests. The investigations provided for in this act shall not be conducted in the interest of any mining company or corporation.

SECTION 5. This act shall take effect and be in force from and after its passage.

Approved March 8th, 1887.

In pursuance of the requirements of this law some investigations have been made, and it is the intention of the writer herewith to make report thereon so far as they have appertained to search for natural gas.

## FACTS KNOWN PRIOR TO THE PASSAGE OF THE ABOVE LAW.

It will be a natural introduction to what follows relating to the investigations that have been carried on, to recall some of the considerations, and mention some of the facts which seemed to invite the expenditure of money in search of natural gas.

1. From time to time reports have been published of the sudden outburst of gas of some sort from excavations made by railroads or by private parties, either in digging common wells or in sinking drilled holes into the rocky strata.

In the making of a well near Big Stone lake the workmen of the Chicago, Milwaukee and St. Paul Railroad met with curious manifestations. There were slight explosions, accompanied by strong odors of some gas. The substance excavated at the bottom of the well was a dark damp clay. Finally a more severe and nearly a disastrous explosion, which threw the workmen violently back and against the side of the excavation, alarmed them so that the work ceased. In this case Supt. C. H. Pryor sent a quantity of the dark clay to the writer, reporting the circumstances and asking a solution of the trouble. The clay proved to be some of the carbonaceous shale of the Benton (probably) of the Cretaceous, and there seems to be little room for doubt that the gas originated in the lignitic beds of the Cretaceous.

In Traverse county, in Arthur, a large flow of gas was encountered at 180 feet depth, said to be below the till sheet of the drift. It rushed out with such force as "to throw out a heavy iron bolt inserted in the pipe." This was on the land of James H. Flood. This flow of gas continued but a short time, and gradually diminished, and finally ceased. This account is taken from the newspaper reports. The quality of the gas was not ascertained, so far as known.

Similar facts were reported by Mr. Francis Bossard from near Waseca. Two wells on his farm gave abundant evidences of gas escaping from the earth. They are about 65 feet deep, and at the mouth of the well the gas took fire from a lighted match and burned with a blue flame extending 8 or 10 feet in the air. When burning there was a noise which could be heard, as alleged, a mile and a half, and the earth trembled "as if by heavy thunder." Water from these wells has a bluish color, and when left to stand shows an oily scum on its surface. This is in a region supposed to be likely to have the Cretaceous rocks underlying the drift.

Mr. August Peterson reported signs of gas at the mouth of the Cannon river in Goodhue county. This was in the sinking of a drill for the purpose of artesian water. "At the depth of 85 feet there was an upheaval of sand and gravel, marked and forcible; filling the pipe to the height of twenty feet with sand, packing it so tightly that we had to drill it out. After cleaning it out there was another upheaval, sending the gravel and sand thirty feet, and so it kept on. We worked a month on twenty-five feet. Whenever we got within 8 or 10 feet of the bottom of the pipe, up the gravel would come. At 115 feet we got the pipe clean, I think. The last cleaning out, however, showed a considerable yellow sand which looked as though coated with mustard; the very last, however, being a brown or blackish and oily substance which on being poured out separated from the water, a smoke or steam rising from it. Then we sent the drill down again, fully believing we were to the rock. The drill, weighing 1,500 pounds, was sent up about 15 feet in the pipe, and the sand the whole length of the drill, which is 28 feet, and shut the drill in solid, requiring several hours of work to loosen it. The parties working becoming both discouraged and angry, the thermometer ranging in the thirties (minus—N. H. W.), in extremity they procured a pile-driver and bent the pipe, so we left the place."

Making another trial at 100 feet from this place, toward the main river bluff, Mr. Peterson obtained a fine flowing well of pure water without any trouble, at the depth of 350 feet.

Besides the above statements there were rumors of the discovery of gas in several other places in the state, which could hardly be said to have authentic foundation. Some were at Hastings, at St. Paul, at Minneapolis, at points between Fort Snelling and Minneapolis, in Chisago county and at Stillwater.

2. About the same time some "experts" from the great gas regions of Pennsylvania, said to be perfectly familiar with the manner of occurrence of gas, and its geological relations to the rocks in which it is found, who could see the "first sandstone" and imagined they could see the "second sandstone" but a few hundred feet deeper, along the valley of the Mississippi in the vicinity of Minneapolis, lighted the flame of popular confidence in the certainty of gas in Minnesota in paying quantities, by confident predictions of "immense spouters," in case a suitable test should be made under their direction. At the same time that they increased the general clamor for some costly test, they increased the general distrust of all geologists and geological evidence by



saying that the geologists know nothing about where gas can be found, quoting the experience at Findlay, O., as evidence of it, and affirming that gas issues everywhere when it is properly sought for.

3. In addition to these facts are some published facts of observation, found in the geological reports of the state. In volume one of the final report, page 384, are given the particulars of an exploration for coal at Freeborn, in Freeborn county, in which gas was met with in the process of sinking a shaft. On page 388 it is stated that some of the common wells in the western part of Freeborn county are injuriously affected by the prevalence of carbureted hydrogen gas. On page 488 is a record of carbonic acid gas in a well in Manyaska, in Martin county. On page 552 Thomas Kennedy's well is described. In it are found the remains of wood, such as logs, bark and leaves of trees, and a dangerous gas gathers rendering the water poor and unfit for use. On page 629 is mentioned the well of J. P. Edwards, situated in Prior, Big Stone county, and that of Samuel Varco, both of which met with gas. The statement is made that at the depth of about 100 feet wells in that neighborhood generally encounter gas, with water, coming from a dark-colored sand.

4. Other facts of a similar nature were in the possession of the survey, derived from various counties, some from Stearns, some from Nicollet and others from Hennepin and from Blue Earth, though still unpublished.

#### THE INTERPRETATION THAT HAD BEEN MADE OF THESE FACTS.

By the state geologist all these signs of gas had been ascribed either to vegetable deposits in the drift or to the Cretaceous. It is now better known than before the recent great developments in Ohio and other central states which have led geologists and others to scrutinize closely all sources of illuminating gas, that a limited amount of gas, undistinguishable from that which issues from the bed-rocks, is found sometimes, in the drift. This seems to be due to the decay of vegetation embraced between the deposits of the two ice-epochs, generally; but may be produced by the burial of vegetation under the operation of much more limited agencies, such as by the flood-stage of rivers or the high tide waters along the sinking sea-coast, or the lacustrine spreading of waters in low grounds toward the close of the last glacial epoch.

As to the Cretaceous origin of some of this gas, there was abundant reason to suspect that the lignites and lignitic beds of that age might be the source of this gas in those instances where the beds of the Cretaceous were known to exist in the neighborhood. In the Cretaceous all the conditions necessary for the production and retention in reservoirs below the surface of considerable quantities of illuminating gas are found to coexist not only in Minnesota but throughout a large extent of territory in Dakota. The lowermost layers of the Dakota group in Minnesota seem to consist, in some places, of lignitic clays and lignite beds, though in others the bottom of this group is sandstones and conglomeritic sandstones. Overlying this is an impervious sheet of clays and carbonaceous shales, dark, plastic, often finely laminated, belonging to the Benton group. These beds would not only themselves be likely to be a source of illuminating gas, but would serve as a tight canopy to retain any that might be generated by the vegetable remains in the underlying Dakota group.

From the greater portion of the state where these signs of gas were known the Trenton formation is wanting, and from the whole of the state the rocks of the Carboniferous age are wanting. In the light of the great developments in Ohio and Indiana of gas from the Trenton, attention was at once attracted to the Trenton formation in Minnesota, and the known and supposed extension of those strata under the surface of the state was closely outlined and carefully considered. The conclusion was reached that the Trenton limestone might be the source of gas in Minnesota, and that in those areas where it was reasonably supposed to lie below the surface, as in Freeborn and Mower counties, at the depth of several hundred feet, it might embrace the natural conditions which it manifests where it is gas-bearing in other places, and it might have a sufficiently close covering in the form of the green and blue shales of the Cambrian [Cincinnati group] to retain such gas within its own porous substance. This consideration was rendered the more reasonable, and more in keeping with the conditions delineated by Prof. E. Orton concerning the Trenton as a gas-bearing rock, by the known fact that the upper part of the Trenton (the Galena) is, in southern Minnesota, and in northeastern Iowa, a porous magnesian limestone. Hence it seemed possible that all the gas known to escape from the surface of the ground, or from wells in that area, might emanate primarily from the Trenton, though



known only as coming immediately from the Cretaceous or from the drift. It was also remembered that at Findlay the real source of the gas which escapes at the surface through crevices in the Niagara limestone and in the drift, is in the Trenton limestone at a depth of 1,648 feet below the surface.

FACTS THAT HAVE TRANSPIRED SINCE THE PASSAGE OF THE  
LAW, RELATIVE TO THE EXISTENCE OF NATURAL GAS IN  
MINNESOTA.

When the law was passed, and for some time before, parties had been engaged in drilling test wells at several places. One was at Faribault, and from this well was reported with particularity, and positiveness, the discovery of coal, marble, and the "conglomerate rock," in which last were said to be evidences of gas. Fair samples of anthracite coal were shown to all who desired to examine it, which were averred to have come from the bottom of this well. Other wells were being sunk at St. Paul, and in South St. Paul, and another at the State Fair Grounds, intermediate between St. Paul and Minneapolis. Gas was reported to have been found issuing from several places at St. Paul and particularly from the St. Peter sandstone near Fort Snelling, on the east side of the Mississippi. Considerable quantities of inflammable gas were exhibited and burned in public places by parties interested in some of these wells, said to have been obtained within a few miles of the Capitol building. At Hastings gas was discovered, as claimed, along the bluffs of the river, and a company was to be organized to bring it into economic recognition and use. At Freeborn, in Freeborn county, the old gas-supply was re-examined. Three drilled wells were sunk to the depth at which gas was found, and gas-pipes were inserted in them with gas-burners at the upper ends. From these the gas was seen to issue, and on applying a lighted match would burn with considerable heat and light. At Duluth a company began to drill for gas, another began at Stillwater and still another at Moorhead and another at Mankato. One was begun also in North St. Paul. The fever spread throughout the state. It is probable that but few counties can be named in which there has not been more or less agitation and some proposals by capitalists to bore for gas—the last being at Minneapolis, where it is reported a gentleman who is familiar with the Pennsylvania gas region, is sure he can see the "first and sec-

and sandstones," and the correct geological relations that indicate the surety of getting a large flow if a proper test should be made.

WHAT HAS BEEN DONE BY THE SURVEY TO DISCOVER THE  
POSSIBLE GAS-RESERVOIRS IN MINNESOTA.

Although the terms of the law making it the duty of the state geologist to undertake a search for economic products are very broad, it was plain that the first expenditure should be for the discovery of gas. There are other economic interests that justly claimed a representation in any such public expenditure, and specially the iron resources of the state, both so far as known and developed, and particularly the unexplored iron regions of northeastern Minnesota which may be said simply to have been discovered, not explored.

Accordingly negotiations were entered into with the St. Paul Heat and Power Company, of St. Paul, who had been sinking a deep well near the State Fair Grounds between Minneapolis and St. Paul, and at other points, in search for gas, for the purchase of one of their deep-well outfits, including steam engine and all appliances and tubing for a deep well two thousand feet deep, six inches in diameter. This also included the derrick which had been erected on the grounds. This was transported to Freeborn county and was put to use in drilling a six-inch well at Freeborn, in that county, in order to ascertain, if possible, the origin of the natural gas that escapes there and is burned at the upper ends of the pipes. The machinery is still there, and is engaged in the same undertaking, under the charge, and at the cost of the Minnesota Natural Gas, Oil and Fuel Company, at Albert Lea.

*The operations at Freeborn.*

It will be best to rehearse the facts which led to the selection of this point in the state at which to make the first trial for natural gas.

In the third annual report of the survey (for 1874) the first report on Freeborn county was given, and includes the following account of

*"Explorations for coal.*

"In common with many other places in southern Minnesota, Freeborn township, in the northwestern corner of this county, has furnished, from the drift, pieces of Cretaceous lignite that resemble coal. Those have in a number of instances incited ardent expectations of coal, and led to the outlay of money in explorations. Such pieces are taken out in digging wells. The opinion seems to grow, in a community where such fragments are found, that coal of the Carboniferous age exists in the rocks below. In sinking a drill for an artesian well, at Freeborn village, very general attention was directed to the reported occurrence of this coal in a regular bed in connection with a 'slate rock.' This locality was carefully examined, and all the information was gathered, bearing on the subject, that could be found. The record of the first well drilled is given below as reported by the gentleman who did the work:

1. Soil and subsoil, clay.....	15 feet.
2. Blue clay.....	35 feet.
3. "Conglomerated rock" (hard to drill).....	2 inches.
4. Sand, with water.....	5 feet.
5. Fine clay, tough, hard to drill, with gravel and limestone pebbles.....	60 feet.
6. Sand, with water.....	4 inches.
7. "Slate rock" } probably Cretaceous. ....	7 feet.
8. "Coal" } ..... 5 ft. 4 in.	5 ft. 4 in.
<hr/>	
Total depth.....	122 feet.

"This indication of coal induced the drilling of another well, situated 100 feet distant, toward the N. E. In this the record was as follows, given by the same authority:

1. Soil and subsoil, clay.....	15 feet.
2. Blue clay.....	33 feet.
3. "Conglomerated rock".....	2 inches.
4. Sand with water and pieces of coal.....	12 inches.
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Total depth.....	60 ft. 2 in."

Further exploration was made in the sinking of a shaft in the same vicinity, but at the depth of 35 feet the work was so impeded by the influx of water, and the workmen being without adequate knowledge and means for removing it, it had to be abandoned.

At still another point, about three-fourths of a mile north of this place, a shaft was sunk to the depth of 57 feet, the strata having been tested first by a drill-hole to that depth. In this drill-hole gas was first met with in noticeable quantity. It rose above the top of the pipe, and being ignited it flamed up eight or ten feet with a roaring sound. The shaft was so near the drill-hole that it drew off the gas gradually, as supposed, allowing the intermixture of so much air that rapid burning was prevented. The exploration here being given up it was resumed at the former place, where another shaft was begun. But water

entered the shaft so copiously that the work had to stop at 106 feet. The water here was impregnated with the same gas as that which rose in the drill at three-fourths of a mile further north. Such water was also found in the well at the hotel at Freeborn. A test was made with sugar of lead for sulphureted hydrogen, but as it failed the gas was presumed to be carbureted hydrogen.

Again in 1880 this search for coal was resumed by Mr. E. B. Clark, who caused a shaft to be sunk 144 feet,\* with the following result:

Soil.....	2 feet.
Yellow till.....	14 feet.
Softer blue till.....	29 feet.
Sand.....	1 foot.
Gray till, harder than the yellow till.....	47 feet.
Sand.....	1 foot.
Gray till.....	2 feet.
Quicksand.....	44 feet.

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Total depth reported..... 130 feet.

At the depth of 124 feet from the surface Mr. Clark reported a stratum of slate two inches thick, "underlain by six inches of soil." The bottom of this exploration was said to have been *drilled* four feet in "slate." By the term slate in all these wells the workmen designate the slaty gray shale which appears in many places in the drift in Minnesota and is derived from the Cretaceous. When it is more than usually abundant it indicates the near proximity of the beds from which it is derived, and in some instances it has been found on excavation, or is in outcrop in the neighborhood along some stream or ravine. The county reports that have been published contain numerous proofs of the nature and origin of this "slate."

A visit was made to the locality before work was begun, and further information was obtained respecting the extent of these evidences of gas. By the aid of some of the citizens of Albert Lea, who had become informed of the former indications and their significance, several new trials had been made, and the flow of gas had been restored and had been conducted to burners which were regulated by thumb-stops.

The small map accompanying shows a section of that part of Freeborn county which embraces the area of natural burning gas. On returning from this visit the following letter was written:

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\*Vol. 1, final report, p. 385.



MINNEAPOLIS, MINN., June, 16, 1888.

*To the Minnesota Gas, Oil and Fuel Company, Albert Lea, Minn.,*

GENTLEMEN: At your request I give herewith a brief statement of the results of the examination I made of the gas wells at Freeborn last week.

There was a party of fifteen or more, and they all witnessed the exhibition of gas-burning from the tops of two inch pipes sunk into the earth about seventy-five feet. That there could be no deception as to the genuineness of this, and the origin of the gas as claimed, the sand pump was sunk into each one and gravel and clay were brought from the bottom. The pumping was also intended to relieve the gas from obstructions caused by water and gravel which get into the pipe and choke the flow of gas. Four such wells are in existence in the immediate vicinity of Freeborn, and afford gas intermittently, the stoppage being caused probably, as represented, by obstructions that now interfere with the current of gas, and choke up the bottom of the pipe. I am credibly informed also that indications of gas have been met with in numerous other instances in the sinking of wells in the neighborhood of Freeborn, and I know, of my own observation, that, now nearly fifteen years ago, when I first surveyed Freeborn county, such exhibition of gas was witnessed in the sinking of a shaft for explorations for "coal," and that it permeated the water of some wells and rendered the water unfit for general use.

The current of gas coming from one of these wells burned with considerable roaring, when allowed to escape in full force, issuing from a series of gas-jets arranged about a central disk, and, when regulated by the stop-cock, it becomes luminous, and burned with the regularity of any gas-supply.

The country round about is an open, ordinary prairie, like that seen in much of the southern and western part of the state, there being no rock exposure in any direction for many miles round. The evenly spread drift has an unknown thickness, and the surface drainage, while finally reaching the streams that flow into the Minnesota river, yet is so sluggish that numerous marshes are caused on the level prairie, and some shallow lakes of considerable size. These wells are on the west side of the morainic tract which passes through the county and which constitutes actually the highest water-divide, but they are not much lower than that divide.

In the absence of reliable data for determining the character



and age of the underlying rock at Freeborn, I can only give you hypothetical explanations of the source of this gas, and must defer till some new facts are ascertained, all positive statements. The general geology of that part of the state will permit the existence of either one or two of those formations that supply gas, at Freeborn, viz.: the Cretaceous, or the Trenton. The Cretaceous is known in some places in the western states and territories to contain not only lignite, and possibly to furnish petroleum, but also to give origin to natural gas, and it has been my opinion that the gas at Freeborn issued primarily from the rocks of that age. The "coal" that was sought by shafting at Freeborn in 1873 and 1874 was Cretaceous lignite, and the reports that were given me of the materials passed through, while evidently so described and modified as to fit the true Carboniferous rocks of Iowa, yet were, so far as I could see, indicative of the Cretaceous only. The deepest was about 128 feet, and at the bottom was said to be "coal."

I think the Trenton formation may exist below Freeborn. Indeed it is very likely to be found, in case of drilling a deep well at a depth not to exceed one thousand feet, and possibly not 500 feet. This formation is well known in Indiana, in Illinois and Ohio as the source of great quantities of natural gas, and it may be the source of that at Freeborn. Even if gas issue now from the Cretaceous, it may come primarily from the Trenton. At Findlay, Ohio, it rose from the Trenton through several hundred feet of strata, and at the surface escaped for thirty years from the Niagara limestone. It was only a deep well that penetrated the Trenton that revealed its real origin. So here, in case of drilling at Freeborn, the drill ought not to cease till the Trenton be reached, even if gas in considerable amount should issue before reaching it.

In conclusion: I am satisfied, both from the facts above stated, and from the analysis made by Prof. Dodge,\* that the gas that issues at Freeborn is natural rock gas; that the geology of that part of the state, so far as it is known, is favorable for the existence of the Cretaceous and the Trenton formations in that part of Freeborn county; that either of these may be the source of

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\* Two samples were submitted to Prof. Dodge. These were obtained and transported under unfavorable conditions, and there is no doubt that the gas became mixed with common air before they reached him. He reported in one sample common air 47.37 per cent, and marsh gas or light carbureted hydrogen, 51.98 per cent. In the other sample he reported common air 24.59 per cent, and marsh gas or light carbureted hydrogen, 74.58 per cent. In each case there was less than one per cent of carbonic acid gas.

this gas; that the imperfect developments which you have prosecuted are ample to show the probability of a great gas reservoir that can be reached by a deep drill; and that all the indications warrant me in saying that you should by all means prosecute the investigation to its final result, and that too as soon and as rapidly as is consistent with due economy.

In view of the importance of this investigation to the State at large, I shall take pleasure in allowing the use of the deep well machinery belonging to the State, in such a test; and under the law of the appropriation made by the last Legislature, will allow such further aid as I consistently can to have the exploration made thorough and complete.

Respectfully,

N. H. WINCHELL,

*State Geologist.*

Accordingly the drilling machinery was removed from St. Paul to Freeborn and a well was begun which has reached the depth of 535 feet, giving the following record. The drillings are deposited at the university.

*The record of the Freeborn gas well.*

	Depth.
1. Yellowish-blue pebbly clay.....	20 feet.
2. Slightly darker pebbly clay.....	30 feet.
3. The same.....	40 feet.
4. The same.....	50 feet.
5. The same.....	60 feet.
6. The same.....	70 feet.
7. Gravel and sand, bearing gas.....	74 feet.
8. Same as No. 3, pebbly clay.....	80 feet.
9. Same as No. 3, pebbly clay.....	90 feet.
10. Same as No. 3, pebbly clay.....	100 feet.
11. Same as No. 3, pebbly clay.....	110 feet.
12. Same as No. 3, pebbly clay.....	120 feet.
13. Drift gravel and sand, with fragments of lignite.....	130 feet.
14. Drift gravel and sand, with many fragments of gray limestone...	140 feet.
15. Fine quicksand.....	145 feet.
16. Magnesian buff porous limestone, resembling Galena, mixed with drift pebbles.....	150 feet.
17. Magnesian limestone drillings, but mingled with some siliceous drift pebbles derived evidently from above. The rock fragments are small and apparently also argillaceous.....	160 feet.
18. Gray limestone, compact, apparently Trenton, also mingled with some drift.....	190 feet.

(No samples at 170 and 180 feet.)

19.	Same as the last, but with slight signs of drift.....	200 feet.
20.	Same as the last, but containing broken pebbles of drift material, evidently from above.....	210 feet.
21.	Coarse drift pebbles, some of the larger ones of limestone like No. 16. The pebbles are of greenstone, granite, and quartz- yte.....	220 feet.
22.	Dolomitic, but mixed with grains of pure quartz, very fine- grained, buffish-gray, having a rapid effervescence.....	230 feet.
23.	The same, but the limestone is nearly white, and compact, some chert fragments are visible.....	240 feet.
24.	Gray aluminous limestone.....	250 feet.
25.	Gray limestone.....	260 feet.
26.	Gray limestone.....	270 feet.
27.	Gray limestone.....	280 feet.
28.	Gray limestone.....	290 feet.
29.	Gray limestone.....	300 feet.
30.	Gray limestone, finely crystalline.....	310 feet.
31.	Gray limestone, with siliceous grains.....	320 feet.
32.	Gray limestone.....	330 feet.
33.	Gray limestone.....	340 feet.
34.	Gray limestone.....	350 feet.
35.	Gray shale, with quick effervescence.....	360 feet.
36.	Gray limestone.,.....	370 feet.
37.	Bluish gray shale; slight effervescence.....	380 feet.
38.	Bluish gray shale; pebbly. ....	390 feet.
39.	Fine bluish shale.....	400 feet.
40.	Coarser shale, containing pebbles of limestone and various crys- talline rocks .....	410 feet.
41.	Fine homogeneous gray shale.....	420 feet.
42.	A mixture of blue and gray shale and limestone containing peb- bles and Trenton fossils. Here was said to be a good show of oil; but it was only temporary, and no trace of it could be found at a subsequent visit.....	430 feet.
43.	Same as the last, the oil signs ceased .....	440 feet.
44.	Fine blue-gray shale, containing grains of silica.....	450 feet.
45.	Blue shale.....	460 feet.
46.	White sandstone, evidently the St. Peter sandstone. Here a green oily appearance is reported to have been conspicuous for a time but was soon lost.....	470 feet.
47.	White sandstone .....	480 feet.
48.	White sandstone .....	490 feet.
49.	White sandstone .....	500 feet.
50.	Green shale, dark, 5 feet thick. The well is cased to this green shale—i. e., the inner casing, 5½ inches in diameter .....	510 feet.
51.	White sandstone .....	515 feet.
52.	White, fine sand. The superintendent here declares that he is sure that a flow of gas was met, and that it is necessary to shut off the water to develop it.....	535 feet.

Subsequent to the above the drillings were not so frequently preserved. Mr. H. G. Day sent samples which afforded the following further record.

53. At a depth of 710 feet samples show a fine-grained magnesian limestone. The letter (Jan. 7, '89) accompanying this states that "the drill is now down 700 feet, and while it is not yet below what you designate St. Peter sandstone, the formation has materially changed in the last 50 feet. The rock at intervals of 5 to 15 feet is intensely hard, the thickness of the hard rock being at times an inch or two, and again several feet. Under each hard substance, is a cavity or very soft porous rock or sand, and when the drill went through into these cavities, in each case very strong coal oil or gas odor came to the surface. The sand bucket was impregnated with the odor so strongly that it filled the derrick room." If this change in the rock had been going on for 50 feet, the bottom of the St. Peter was at a depth of 650 feet, or 180 feet below the point above recorded at which it was first recognized: Sixty feet of the Shakopee limestone; at ..... 710 feet.
54. The next sample sent in is a white saccharoidal, rounded, sandstone, with the record: "21 feet of this at a depth of 840 feet." There is hence an interval of 109 feet unknown..... 840 feet.
55. Slowly effervescing magnesian limestone, with the note: "Ten feet of this at a depth of 880 feet, underlying and overlying sandstone."..... 880 feet.
56. Mottled green and reddish shale, with the note: "A thin stratum of the green shale overlying 18 feet of red shale. Green shale struck at 900 feet." This green shale is undoubtedly within the St. Lawrence horizon (the "Mendota beds" of Wisconsin), and that allows the interval from 650 feet to 900 feet for Shakopee limestone, the Richmond sandstone, the main body of the Lower Magnesian and the Jordan sandstone. This interval, amounting to 250 feet, can not be subdivided accurately because of the lack of record. This shale, with varying amounts of magnesian limestone, continues to the bottom of the well, at 950 feet ..... 900 feet.
57. Drillings made up of green shale and magnesian limestone, mostly the latter. Taken at depth of..... 920 feet.
58. Drillings mainly of fine-grained, nearly white, magnesian limestone, but evidently also siliceous, but with some fragments of purplish shale. The accompanying note is: "About 20 feet of this." Taken at..... 930 feet.
59. Much like the last, but more siliceous; effervesces generally, but leaves a large insoluble residue. This is probably from some of the layers of the St. Lawrence, and can not be further defined. Has some greenish shale..... 950 feet.

By a condensation of the record the following appears to be the geological position of this well:



1. Drift.....	150 feet.
2. Galena limestone .....	10 feet.
3. Trenton limestone and shales.....	310 feet.
4. St. Peter sandstone.....	180 feet.
5. Lower Magnesian (with its parts, Shakopee, Richmond and main body of limestone), and Jordan sandstone.....	250 feet.
6. In the St. Lawrence limestone (with the accompanying shales): pierced.....	50 feet.
Total.....	950 feet.

Under date of Dec. 5, the investigation was still going on. Mr. H. G. Day, who has been active in promoting this enterprise, says: "We found oil of the pea-green color (petroleum) in small quantities in the Trenton. At a depth of 534 feet Mr. Bowland (the superintendent) claims he found a vein of gas of about the character of that in the exhibition wells, but water was coexistent and it could not well be cased off; so he bored further, and at a depth of 565 feet he claims to have found the strongest vein of gas yet encountered there. It certainly gave the gas odor, and filled the atmosphere with its fumes for several rods about. Every bucket that came up brought the odor, but as the well was nearly full of water, it was impossible to fully test it. We have been at work lately trying to case off the water from this vein, but have so far failed, although we have cased down with seed-bags and closed the hole tight around the casing at the bottom three times. The water vein was lower and we could not clear the well of water. While waiting for some elevators to lift and lower the casing we are now boring deeper. If we find nothing important before the elevators come we shall then make further efforts to case off the water just above the lower gas vein, and we intend to persevere in that purpose. If we fail, or if the gas does not show itself, as all believe it will do, we are determined to go deeper, perhaps 2,000 or 3,000 feet, and we very much desire to use your machinery therefor. Our 'backers' want to make a thorough investigation, and seem willing to stand the expense."

Mr. Day also says, under date of Dec. 13, '88; "We have been using every effort during the past two or three weeks to shut off the water in our well at the gas indications, 465 feet, and have had the help of three experts, men as capable as any to be had.



But it is impossible, we at last found, as the water and gas indications are coexistent. These men agree that there are almost certain evidences of gas, such as would be considered sure in the gas regions of the east. We are boring deeper, and want to go down 2,000 feet if necessary. We want to make the test thorough, and all concerned will not be satisfied otherwise."

This being the situation at Freeborn at the present time, the search not being concluded, it will be next in order to rehearse the facts connected with some other wells in the same county.

*Other wells in Freeborn county.*

In the immediate vicinity of Freeborn several common wells have been found to develop, at the depth of something less than 100 feet, the same signs of burning gas as Mr. Scott's near the village. Of these the farthest northeast is in the northeast quarter of sec. 13, Freeborn, and the farthest southwest is in the western part of sec. 9, Carlston, separated from each other about seven miles. Several others intermediate between these extremes are so situated, including that at Scott's where the above test was made, that the direction of greatest evidence of gas seems to run in a narrow belt extending about N. E. and S. W. In general, about Freeborn, common wells pass through first about 70 feet of blue till, then a dark clay about 3 feet, sand about six inches, giving the gas flow, and then blue clay ("till") extending down to the rock, which is struck at about 150 feet. The rock is struck at 150 feet at Hartland. At a mile and a half south from Hartland, four miles east of Freeborn a well penetrated to a depth of 226 feet, which included 40 feet in rock, with no sign of gas. The rock was found to be a white magnesian limestone like that in the deep well at Albert Lea. Toward the west and northwest, in Freeborn county, from the point at which the above test was made for gas nothing is known as to the existence of gas at any depth, as no wells sufficiently deep have been dug.

In Bath township, Mr. Michael Whalan, N. W.  $\frac{1}{4}$ , S. W.  $\frac{1}{4}$  sec. 33, T. 104, 21, and Mr. Hans Nelson in N. E.  $\frac{1}{4}$  N. E.  $\frac{1}{4}$  sec. 4, T. 103, 21, Bancroft, found, at the depth of 190 feet, a gray sand of medium grain in the drillings from which were found fragments of charcoal and black, lignitic cellular woody material which resembles that found in the lignitic beds of the Cretaceous



20.	Mus. Reg. No. 6211.	Same as the last, from.....	237 feet
21.	" " " 6212.	Same as last, from.....	240 feet
22.	" " " 6213.	Mainly a homogeneous, buff, magnesian limestone, with some quartz sand, from.....	241 feet
23.	Mus. Reg. No. 6214.	The drillings consist, mainly of the same, light-buff magnesian limestone, but contain also numerous pieces of a dark earthy shale, not inflammable nor combustible, from.....	243 feet
24.	Mus. Reg. No. 6215.	Reddish-buff magnesian limestone, with some fragments of opaque white silica and some rounded sand, from.....	248 feet
25.	Mus. Reg. No. 6216.	Same as the last, from.....	250 feet
26.	" " " 6217.	The same without silica and sand, from.....	254 feet
27.	" " " 6218.	Reddish-buff, compact, magnesian limestone, from.....	258 feet
28.	" " " 6219.	The same, from.....	260 feet
29.	" " " 6220.	Reddish-buff, compact, magnesian limestone, mottled with gray, from.....	265 feet
30.	Mus. Reg. No. 6221.	The same, without gray mottlings, but with some chert and some sand, from.....	270 feet
31.	Mus. Reg. No. 6222.	Light-gray to buff, crystalline magnesian limestone, with rare beads from crinoid filaments, from.....	275 feet
32.	Mus. Reg. No. 6223.	Buff magnesian limestone, from.....	285 feet
33.	" " " 6224.	Light-buff magnesian limestone, some of the drillings being unwashed, and then, dried, resembling a light-gray shale, from.....	295 feet
35.	Mus. Reg. No. 6225.	Vesicular, buff, magnesian-limestone, resembling the upper part of the Niagara limestone, from.....	300 feet

There is but little to serve as a guide in assigning these limestone strata to their geological horizon. There is, in the Albert Lea well, a thickness of about 186 feet of limestone which does not vary very much lithologically, extending from 114 feet to 300 feet. It is shaly in some places, and also arenaceous. These characters would not preclude the Galena limestone, which is thought to be the most probable rock in that geographical area. If, however, the Devonian limestones extend as far north as Albert Lea, these beds could all be assigned to that age, as far as their lithology is concerned, except Nos. 33 and 34, which have a greater resemblance to the Niagara. This would bring the Devonian upon the upper Silurian, as supposed in the deep well at Austin.\* The shale extending from 155 to 220 feet, a thickness of 65 feet, would, in that case, represent the Austin rock, and the mixed and arenaceous beds extending from 220 feet to 240 feet would parallelize with the conglomerate of the Austin well. There would be then 45 feet of magnesian limestone in the Albert Lea well, below the conglomerate horizon before the lithology of the Niagara is recognizable. This would fall into the upper part of No. 8 of the Austin well.

More recently several other wells have been drilled at Albert Lea, and some have obtained an artesian flow of water. Incomplete records of some of these wells have been obtained.

The "Greene-Dommick company" well is three blocks west

\*The record of the Austin deep well is given in the 14th annual report, p. 16.



of the city park. It had 92 ft. 4 in. to the rock, the drift consisting of sand followed by 50 feet of blue clay, four feet of gravel, and a hardpan, which last lay on the rock. The first rock was a buff magnesian limestone of fine grain, effervescing freely, resembling the Onondaga portion of the Devonian limestones as described in Ohio, and also in the report on Fillmore county.\* This had a thickness of 20 feet. This was followed by a shale three feet in thickness, and the shale by 40 feet of bluish, very fine-grained sandrock resembling the Austin rock, so-called, but effervescing freely, and disintegrating, leaving an impalpable residue. Below this the workmen reported a "crevice" 15 inches in perpendicular thickness, from which were shown some pebbles and fragments of white granular quartzite and one of a dark gray, arenaceous quartzite. Under this was a porous, nearly white, fossiliferous limestone which is easily referable to the Niagara such as that described in the southern part of Fillmore county\*\* and on the Mississippi river further southeast. This extends, with some variation to compacter texture, and the intermixture of some rounded grains of white quartz, to at least the thickness of 20 feet below the crevice, at which point the record is broken, and nothing further is known till at the depth of 212 feet when the drillings show a compact saccharoidal limestone which had been pierced six inches. It may fairly be presumed, since no drillings were shown, that no change worthy of note took place in this unknown interval, and that the Niagara extended downward to the last — which itself also seems to belong to the Niagara.

At Albert Lea a mucky deposit is found in some wells at about thirty-eight or forty feet below the surface. This is associated with quicksand, and contains leaves and sticks. It renders useless some of the common wells. Other wells in the vicinity of Albert Lea yield a gas which on being examined by Prof. Dodge was found to be carbonic dioxide. When this was first discovered it was supposed to be burning gas of the same quality as that at Freeborn, but it would not ignite.

#### DEEP WELLS IN OTHER PARTS OF THE STATE.

*The exploration at Mankato.* Prompted by the prevalent idea that gas must exist in many unknown reservoirs in the crust of the earth, capriciously formed and distributed in a manner

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\* Final report, Vol. I, p. 303.

\*\* Final report, Vol. I, p. 302.

wholly unknown and inexplicable by geology, some parties at Mankato organized a company and sought the services of the diviner's-rod. A gentleman by the name of Booker was paid \$250 for "locating" the gas veins at Mankato. This "witch," whose services are well known in Ohio where he has been extensively advertised by his bombastic circulars, passed over the ground, and, as reported, was taken with jerks and shakings so violently in certain places over which he passed that he could not endure the current. He was obliged to stand on one foot, placing the other against his knee to break the electric flow. He predicted that a gas flow equal to that at Van Wert, Ohio, would be obtained by drilling at the point he designated, which was near Minneopa falls, about where the company desired to drill.

Here a well was drilled to the depth of 1,000 feet, giving artesian water, and reputed to have brine at the bottom, with the following imperfect record, which is ambiguous in some of its parts:

*Record of the deep well at Minneopa falls, near Mankato.*

1. "Loose soil, sand and gravel," about..... 100 feet.
2. "Blue slate," probably a shale of the "Mendota" horizon,  
about ..... 10 feet.
3. "White sandstone," about..... 35 feet.
4. "Red stone, clay-like," about ..... 20 feet.
5. "Bluish slate, white when dry," about ..... 100 feet.
6. "Pink sand," about ..... 10 feet.
7. "More white sand," about..... 100 feet.

Then comes the quartzite, which was struck at 585 feet.

[No samples of these strata above the quartzite were seen by the writer, but the description is such as was given by the gentleman (Fox) who was last in charge of the well. This record seems defective, since among the drillings preserved, of which samples are deposited at the University, is a magnesian limestone at the depth of 117 feet, and other samples as detailed below.]

8. Magnesian limestone, some of it being pinkish and easily effervescing, and other parts being specked with greensand, like that seen at the quarries at Judson,\* a few miles northwest from this place. Said to be the first rock struck—117 feet below the surface. The pipe is driven down to this. Thickness.....unknown.
9. Whatever the succession of parts above, there is a substantial accord in all the evidence that a red quartzite and pebbly conglomerate was struck at 585 feet. Prof. Bechdolt is of the

\* Final report, Vol. I, p. 125.



opinion that the whole of this was conglomeritic. This is the New Ulm rock, the "Baraboo quartzite," the Huronian quartzite of Wisconsin, the Wausaugoning quartzite of Pigeon point, the Pewabic quartzite of the Giants' range, the Pokegama quartzite of the upper Mississippi, the Thessalon quartzite of the original Huronian in Canada, the Potsdam quartzite of the Adirondack region, the "granular quartz" of the Green mountains, and the "red sandrock" of the Champlain valley, and probably the Braintree quartzite of Massachusetts. There is a remarkably uniform lithology and constancy of general stratigraphic relations that attend this great quartzite from Minnesota to New England. In New England it has given fossils that fix it in the primordial zone, and the same have been found in it at Pipestone in Minnesota, about..... 200 feet.

10. Below this quartzite and conglomerate was found a grayish hard rock which in the drillings is fine and nearly black. These drillings contain magnetite in considerable amount, which when examined for titanium show the rock is not titanitic, and hence that the stratum is probably not the equivalent of the gabbro of northeastern Minnesota, as it was first suspected of being. It is on the other hand likely some part of the dark slates of the Animike which often contain non-titanitic magnetite.\* Under the microscope this proves to be a highly quartzose fragmental rock, about..... 60 feet.
11. Associated intimately with this, and not distinguished from it by the drillers, is a light reddish soft rock, the drillings of both sorts appearing in the same collection, and both being said to have been "first below the quartzite." This reddish rock soils the fingers, but some of it is harder and will not crush easily. Parts of it are kaolinic, even white, and it also contains some crystals of calcite which show rapid effervescence. A few of the grains put into hydrochloric acid soon form a jelly, showing the probable presence of some zeolitic mineral, perhaps laumontite. The general aspect of this soft red rock, which also contains some fragments of hard red felsyte, is the same as that of the "ash-bed conglomerates," and laumontitic amygdaloids of the Cupriferous of the northern part of the state.
12. Below this the drill entered a compact red felsyte, the drillings from which, while showing some of the soft red rock described above, also become sub-granular and phanero-crystalline, the separated minerals being apparently orthoclase and a greenish foliated mineral like some chlorite. In this the work stopped at the depth of one thousand feet.†

\* Compare the sixteenth annual report.

† Subsequently the official record of this well was furnished by Mr. S. R. Patterson, of Hartford City, Ind. But this is confirmed by no samples of the drillings. It fills up some of the gaps of the other record, and confirms the depth reported for the red quartzite, here-

The record of this well seems to indicate that the Cupriferous formation lies below not only the Potsdam quartzite, or some portion of it, but also below some portion of the Animike, at least below some beds which are identifiable with the magnetitic, fine quartzites of the Animike. This brings up various important stratigraphic problems which have been studied in the northern part of the state, but their consideration cannot be entered on here.

*The deep well at Stillwater.* The well at Stillwater was drilled, not with direct reference to seeking burning-gas, but, while the prevalent agitation on that subject probably prompted the undertaking, several citizens united in an effort to ascertain thoroughly the nature of the rocks that might lie below the city to the depth of two or three thousand feet. The well is 5 5-8 inches in diameter. It is situated on block 21, of the original town, about 40 rods west from the City Hall. In the following record the figures show the bottom of the respective strata, but the samples are from the top of the same, having been collected when the several changes first took place. The pipe rests on the stratum represented by the sample got at 701 feet. The hole is dry, nearly, below this pipe, except that by seepage a small quantity of brine enters the well. After stopping eight days there was found in the bottom about eight feet of such brine. This is on the authority of Mr. John McKusick. Some of this was preserved and on being examined by Mr. Sidener at the University laboratory was found to embrace some bromine, this test being made to ascertain its alliance with natural rather than artificial salt water.

styled "conglomerated granite." The red slate of this record (No. 11) is the same as No. 11 of the record above. But No. 12, the "dark blue granite," is the same as No. 10, the actual order of succession being more likely that of this record.

1. Soil.....	10 feet.
2. Quicksand and gravel.....	78 feet.
3. Soft sandstone .....	28 feet.
4. Red rock.....	10 feet.
5. Sandstone.....	100 feet.
6. Slate.....	100 feet.
7. Sand rock.....	100 feet.
8. Green slate.....	70 feet.
9. Soft sand or water rock.....	84 feet.
10. Conglomerated granite.....	150 feet.
11. Red slate.....	100 feet.
12. Dark blue granite.....	75 feet.
13. Red slate.....	25 feet.
14. Red granite.....	70-95 feet.

*Record of the Stillwater well.*

	Taken at
1. Rusted, coarse quartz sand, rounded.....	18 feet.
2. Gray siliceous shale, or "slate.".....	103 feet.
3. White sand, with some yellowish shale.....	142 feet.
4. Fine white sand, giving first water.....	162 feet.
5. Green shale.....	203 feet.
6. Fine white sand, with globules of pyrites.....	215 feet.
7. Green shale or sand, mingled with some white sand.....	271 feet.
8. White sand with some specks of green sand; water in large volume.....	302 feet.
9. Mainly white sand, having a grayish aspect.....	312 feet.
10. Quartz sand, with some gray grains, all rounded.....	322 feet.
11. Rounded white sand, with some gray grains and some pyrites...	349 feet.
12. Gray shale, slightly greenish.....	380 feet.
13. Whitish sand, but specked with pink, gray and some yellowish quartz, and occasionally a red orthoclase fragment.....	450 feet.
14. White sand, rounded.....	460 feet.
15. A greenish-whitish, compact, kaolinic shale or clay, with a considerable amount of rounded quartz sand, the last probably mixed in the clay by the drilling process.....	540 feet.*
16. Coarse, yellowish-white quartz sand, almost pebbly.....	630 feet.
17. The same. Here the water all ran out.....	680 feet.
18. Red slate, or shale, with white kaolinic grains.....	701 feet.
19. White sand (quartz) mingled with reddish grains and with red shale pieces.....	706 feet.
20. Red clay (shale), unwashed, hardened in drying.....	717 feet.
21. Dark-red or brown feldspathic sandstone.....	796 feet.
22. Dark-red or brown feldspathic sandrock.....	892 feet.
23. Somewhat darker, otherwise the same as the last.....	923 feet.
24. Same as the last.....	952 feet.
25. Same as the last.....	2250 feet.

At the time this depth was reached (Dec. 6, 1888), there was a temporary suspension of work, but it was resumed again subsequently, the record being reported at 2,570 feet to be still the same as at 2,250 feet. This gradually became more kaolinic-feldspathic and trappose, also amygdaloidal and calcitic, and at 3,300 feet was succeeded by diabase and a succession of beds characteristic of the Keweenawan to 3,400 feet.

This red, or brownish rock (No. 25), is quite a different rock from the red kaolinic rock described in the Minneopa well, and lies much higher in the strata. This is the Fond du Lac and Ashland brown sandstones, well known as a building material, with the interstratified shales, a section of which on the St. Louis river has been taken with care and published in the tenth report of the survey.\* There seems to be in this well an alternating graduation

\* Tenth report p. 30. The full thickness is not represented in this section.

from the light-colored sandstones to this feldspathic and reddish formation, indicating a chronological downward order unbroken by any important omission of strata, or unconformity. This agrees with observations in other places, and in some other wells; and if the "ash-bed" reddish rock described in the Minneopa well be correctly placed in the strata above the Animike, or within the Animike, there must be between this "red rock" and that of the Minneopa well, not only the red quartzite but also the gabbro horizon. The gabbro sheet, therefore, if it extended to Stillwater, would be the first of the crystalline rocks that might be expected in further prosecution of that well. Below that would come, in regular order, the New Ulm quartzite; then the Animike black slates with their magnetite and felsyte.\*

*The deep well at Moorhead.* All information respecting this well was obtained through the courtesy of Mr. Sam. Partridge, of Moorhead. He has furnished a complete set of the drillings, and some notes that were made as the work progressed, by Mr. Andrew Holes. These notes are included at proper places, in the following record, which is made up from the drillings sent. The contract was executed by Gray Brothers, of Jamestown, Dakota. The well is located at centre of 7th street, north of Front street. Contractors began with a 14 in. hole, for 100 feet. Water was struck at 120 feet, which rose to near the top. Owing to losing the drill at about 174 feet in quicksand, and being unable to raise it, the contractors commenced at another point about 30 feet north of the first hole. A boulder was struck at 150 feet, and another at 170 feet, in gravel; broken by blasting.

	Thickness.	Depth of Well.
1. Black soil.....	2 feet.	2 feet.
2. Yellow loam, or clay.....	3 feet.	5 feet.
3. Yellow clay — lacustrine or alluvial; brick clay.....	50 feet.	55 feet.
4. Very fine, lacustrine blue clay, with occasionally a pebble.....	55 feet.	110 feet.
5. Drift gravel, with some clay, blue .....	5 feet.	115 feet.
6. Drift gravel, much limestone.....	10 feet.	125 feet.
7. Coarse drift gravel, much limestone.....	10 feet.	135 feet.
8. Drift gravel and sand, somewhat clayey; blue.....	10 feet.	145 feet.
9. Sandy and gravelly clay, blue.....	10 feet.	155 feet.
10. Sandy clay, blue.....	10 feet.	165 feet.

\* At a depth of 3,500 feet (May, 1889) the drillings indicate that the drill has entered gabbro, though of rather finer grain than most of that which appears in the hills of the Mesabi range, north and east of Duluth.



11.	Sandy clay, blue.....	20 feet.	185 feet.
12.	Gravelly and sandy clay, blue; with flakes of metallic iron, probably from the drill.....	10 feet.	195 feet.
13.	Boulder; hard gray gneiss, mostly feldspar and quartz, fine-grained, the sparse mica being silvery and like hydromica, evidently a metamorphic rock, striped with sedimentary variations, some of the feldspar pinkish; broken by dynamite .....	5 feet.	200 feet.
14.	Boulder; quartzose, gray, evidently fragmental, very hard, in a talcose or sericitic matrix, and with veins of the same.....	20 feet.	220 feet.
15.	Bluish, sandy clay .....	20 feet.	240 feet.
16.	Bluish, sandy clay.....	60 feet.	300 feet.
17.	Quicksand.....	45 feet.	345 feet.
18.	Quicksand, with some clay.....	15 feet.	360 feet.
19.	Green shale or clay; the drillings contain some grit; evidently the commencement of the green granitoid rock .....	15 feet.?	375 feet.
20.	No drillings sent.....	15 feet.	390 feet.
21.	Soft, reddish, feldspathic chlorite-granite, or gneiss...	10 feet.	400 feet.
22.	No drillings sent.....	40 feet.	440 feet.
23.	Soft, reddish, feldspathic chlorite-granite, or gneiss ..	35 feet.	475 feet.
24.	Soft, reddish, feldspathic chlorite-granite, or gneiss...	125 feet.	600 feet.
25.	Soft, reddish, feldspathic chlorite-granite, or gneiss...	35 feet.	635 feet.

[NOTE.—The rock from 375 feet to 635 feet is said to vary from "blue" (green?) to red, or brown, and *vice versa*, every 20 or 30 feet, indicating a gneissoid rock.

26.	Same as the last.....	110 feet.	745 feet.
27.	The same, but varying toward the rock like the boulder described above at the depth of 200 feet.....	20 feet.	765 feet.
28.	Same as the last, but more green from chlorite.....	35 feet.	800 feet.
29.	Same as the last.....	100 feet.	900 feet.
30.	The same.....	100 feet.	1000 feet.
31.	The same; but the drillings present a different aspect, and are so fine that only with difficulty can the ingredients be made out. The feldspar and quartz are not perfectly differentiated .....	10 feet.	1010 feet.
32.	The same as the last, but coarser. It is evident from this that the rock is an imperfectly crystalline granitoid rock, the outlines of the quartz and feldspar not being defined, but blending together, as if a finely granular felsyte, with some cloudings due to impurities. The impurities cannot be easily defined mineralogically, as they also fade out in the mass, but are perhaps micaceous or chloritic .....	40 feet.	1050 feet.
33.	The same, but darker colored; the feldspathic ingredient is frequently pink.....	15 feet.	1065 feet.
34.	The same; fine drillings .....	25 feet.	1090 feet.
35.	The same; fine drillings.....	30 feet.	1120 feet.



36. Soft, greenish, but finely red-mottled, flaky feldsyte(?); texture and grain like the last. This is so fissile and so dark colored that it has a very different aspect from the last. The partings are glistening as if slickensided and chloritic. It is associated with some of the eruptives, but its characters do not identify it certainly with any known horizon... 75 feet. 1195 feet.
37. The same, with some calcite and some white feldspar(?)..... 10 feet. 1205 feet.

The Moorhead well shows that there the drift rests on crystalline rocks of a peculiar gneissoid kind.

[Note. As the Moorhead well is being drilled at public cost, the writer deemed it proper to remonstrate against further expense, and communicated at once with the mayor through Mr. Sam. Partridge. In a few days the *Moorhead News* contained the following, giving correctly the recommendation written to the mayor:

Mr. Sam. Partridge this morning received a communication dated May 8, from Prof. N. H. Winchell, state geologist, addressed within to the mayor of Moorhead, stating that he had just examined the samples of drillings taken from the Moorhead artesian well which were sent to him a short time ago, and expressing regret that he had not before been able to obtain samples, "because," said he, "I could at once have told you that there was no earthly use of your going to further expense on the well. You ought to have stopped when the drill struck the rock at the depth of 390 feet, the rock being granitic and of that sort which forbids any hope of obtaining artesian water or other product of value."

Soon thereafter further drillings were sent by Mr. Partridge, and by other gentlemen, asking re-examination, on the ground that, "having gone so far it was heart-rending to give it up now." The lower drillings did not afford any reason to change the opinion before reported.

Still the drill was continued, and the newspapers of Fargo (*Argus*) spurred it on with such comments as follows:

Mayor Hansen, of Moorhead, says they intend to continue sinking the artesian well, in spite of professor Winchell's prognostications. And in this the whole Red River valley says — "good for Hansen." There is no geological or other prescience that can guess dead sure on Red River valley matters. Success is what is wanted, and Hansen shows true grit.

When the Findlay, Ohio, people were first boring for gas, the state geologist delivered a lecture there in which he said it was useless to bore in such a formation, as they would never find gas. But they kept right on and struck a gas

well — before the state geologist got away from town. And now Findlay has the biggest gas display in the world. With all due respect to Mr. Winchell, state geologist of Minnesota, why not let Moorhead do the same?

A second letter from Mr. Partridge, accompanied by drillings down to 1,425 feet, states that a remarkable change occurred after the last drillings before were sent, viz.: *A bed of quick-sand had been found near the bottom of the well, from which water quickly rose to near the top of the ground, and that the interested parties felt greatly encouraged to proceed.*

On examining the samples from this lower depth, they are found to be as follows, when thoroughly washed:

- |  |           |            |
|--|-----------|------------|
| 38. Mainly water-worn sand; but embracing also films of iron rust, scales of slag from some furnace, or fire-box where coal was burned, angular bright pieces of soft coal which burns readily in a flame, and some seeds which look fresh enough to sprout. These have been planted in order to ascertain, if possible, what sort of angiospermous vegetation lived at the age of the Moorhead granite and has so singularly preserved not only its form but its farinaceous store of food so long. There are also in this some granite drillings. This sample was sent in the condition of a hardened clayey lump, but on washing away the finer parts these ingredients appear. It is probably from this that rose the supply of water which came to near the surface, — though it is a reasonable query as to how it was distinguished from that which was struck at 120 feet and which rose then to near the top..... | 15 feet.  | 1265 feet. |
| 39. Mixed granitic rock; some rounded material, including pebbles of weathered limestone that effervesce in hydrochloric acid; also scales of iron matter from some clinkers from coal burnt in a furnace or other fire-box.....   | 15 feet.  | 1280 feet. |
| 40. The drillings are mainly of a light-colored but chloritic granite, quite rusty with scales of iron from the drill, and others from some other source as remarkable as those mentioned above.....   | 45 feet.  | 1325 feet. |
| 41. Drillings mostly of white feldspar and quartz, but also with evident, fresh chlorite-films.....  | 100 feet. | 1425 feet. |

It is scarcely necessary to comment on these drillings. They demonstrate, to any geologist, not only the position of the bottom of the well, and the futility of further expense, but also the probably intentional tampering with the record, by which it was hoped the enterprise would be pushed further.

According to the latest accounts the mayor of Moorhead is still drilling in this granite. May 26, 1889.]

*The Duluth deep well.*

The drillings of this well, as furnished by Messrs. Gridley, Mishler and others, were procured and sent to the survey by Wm. F. Phelps, Esq., secretary of the Duluth chamber of commerce. They are well washed and carefully preserved in glass bottles and numbered so as to show the different depths from which they came. After the well had been sunk about 231 feet the enterprise changed hands. Previous to 231 feet no record was kept, nor drillings preserved. The well is located at Short Line Park, near Duluth, which is a short distance west of the head of lake Superior, but within the general valley of the St. Louis river. The mineral water met with in this well was analyzed by Prof. Dodge, of the university of Minnesota, and the result of the analysis is given below. It seems to be very similar to the brine met with in the Stillwater and Hastings wells.

	Record.	Depth of	
		Thickness.	Well.
1.	Earth .....	100 feet.	100 feet.
2.	Rock (?) no drillings preserved.....	131 feet.	231 feet.
3.	Brownish-red, finely granular, homogeneous, with little free silica, apparently of the copper series.....	12 feet.	243 feet.
4.	Gray epidotic, finely granular gabbro.....	33 feet.	276 feet.
5.	No drillings.....	104 feet.	280 feet.
6.	The same as No. 4.....	37 feet.	417 feet.
7.	The same as No. 4.....	31 feet.	448 feet.
8.	Apparently the same, but finer-grained, approaching diabase.....	15 feet.	463 feet.
9.	Essentially quartzose, but the drillings contain also evidently feldspathic (labradoritic) fragments; the grains vary from limpid quartz to gray or pink or purplish; some of the larger are composed of grit, the included grains being rounded.....	5 feet.	468 feet.
10.	The same as the last, pyritiferous, a quartz conglomerate.....	5 feet.	473 feet.
11.	Drillings gray, pulverulent; rock very fine-grained, aphanitic, apparently soft.....	17 feet.	490 feet.
12.	Drillings brown, with green grains of epidote (?) white grains of calcite and quartz and red grains of orthoclastic material. The needle does not pick out grains that are plainly of magnetite, but scales of rusted metallic iron, derived from the drill. This iron is found also in all the foregoing. The rock is not typical gabbro, but represents one of its modifications. It is rather fine-grained.....	16 feet.	506 feet.

- |   |           |            |
|---|-----------|------------|
| 13. This rock is essentially a brown felsyte perhaps a conglomerate, some parts being finely granitic in grain. It is also apparently fragmental, and also resembles some of the coarser, pseud-amygdaloidal beds of the Cupriferous seen along the lake Superior shore further east.....   | 2 feet.   | 508 feet.  |
| 14. Evidently a conglomerate that contains principally brown felsyte; also brown shale, and white and gray quartz and granular quartzite. The shale is perhaps the matrix, and has mainly disappeared in the process of drilling and washing the drillings. It is slightly pyritiferous, and epidotic.....  | 3 feet.   | 511 feet.  |
| 15. Pink and gray, quartzose conglomerate, and granular quartzite, pyritiferous.....  | 2 feet.   | 513 feet   |
| 16. The drillings are principally granular white or limpid quartz in small, angular grains. The cement seems to have been of the same material in finer grains .....  | 1 foot.   | 514 feet.  |
| 17. Same as the last, evidently a white, granular quartzite.....  | 2 feet.   | 516 feet.  |
| 18. The same, but showing gray also.....  | 4 feet.   | 520 feet.  |
| 19. The same, but more gray, also pink.....   | 4 feet.   | 524 feet.  |
| 20. The same.....   | 4 feet.   | 528 feet.  |
| 21. Drillings dark-gray, pulverulent; similar to No. 11 above.....  | 2 feet.   | 530 feet.  |
| 22. Trap-rock, epidotic diabase, some fragments brown; drillings fine, generally of a gray color.....   | 24 feet.  | 554 feet.  |
| 23. Gray, diabasic traprock, epidotic and apparently amygdaloidal.....  | 20 feet.  | 574 feet.  |
| 24. The same; some fragments being brownish.....  | 16 feet.  | 590 feet.  |
| 25. Drillings very fine, but apparently the same as the last.....   | 8 feet.   | 598 feet.  |
| 26. Brown-gray diabasic rock, rather coarse-grained.....  | 15 feet.  | 613 feet.  |
| 27. Drillings are of two sorts, (a) brown granito-felsitic, and (b) gray, fine-grained and traplike; some of the latter appearing to be porous or amygdaloidal or fragmental.....   | 6 feet.   | 619 feet.  |
| 28. "Black slate" or argillyte, aphanitic and purplish-gray, occasionally embracing fragments of coarser grit-rock as well as of light-grain softer slate or schist. This black slate has a slaty cleavage, but it can not be determined whether coincident with a sedimentary bedding or not, although it appears to be independent of such a structure; evidently the Thompson slate formation..... | 61 feet.  | 680 feet.  |
| 29. The same as the last; with some drillings of white vein-quartz.....   | 200 feet. | 880 feet.  |
| 30. The same, but having a greenish tinge apparent, and being some softer.....  | 200 feet. | 1080 feet. |



31.	No drillings.....	90 feet.	1170 feet.
32.	The same as No. 28.....	5 feet.	1175 feet.
33.	The same as No. 30.....	60 feet.	1235 feet.
34.	Essentially the same rock, but apparently not so slaty, with vein quartz.....	105 feet.	1340 feet.
35.	The same, rather light gray.....	30 feet.	1370 feet.
36.	Gray slate, slightly pyritiferous; evident slaty cleav- age.....	5 feet.	1375 feet.
37.	The same as the last.....	25 feet.	1400 feet.
38.	Drillings are of two kinds, (1) dark gray slate (?) like the last, and (2) a lighter rock, apparently hydro-micaceous slate .....	35 feet.	1435 feet.
39.	Drillings very fine and of a light yellowish color. Thorough washing leaves a residue of fine quartz grains mainly; but this does not indicate the gen- eral character of the rock, as the matrix of these grains is evidently lost by the washing. These grains are mainly white, sometimes glassy, but of various shapes and sizes. They can not be said to be waterworn, and are themselves minutely granu- lar when magnified about 40 diameters. Mingled sparsely with the white and glassy grains are also a few that are purplish, or gray, and also some of a loose, hypermicaceous schist. The general yellow- rusty color is caused probably by the oxidation of iron scales derived from the drill. These scales pervade all these drillings.....	2 feet.	1437 feet.
40.	The same as the last.....	8 feet.	1445 feet.
41.	The same as the last. In this can be seen, under the microscope, some fragments of a rock that ap- pears to be a kaolinic itacolumyte, and it is not unlikely that they are from the rock that furnishes these quartzose washings.....	3 feet.	1448 feet.
42.	The same as the last, but also contains some drillings like the next.....	2 feet.	1450 feet.
43.	Gray compact, very fine-grained, crypto-crystalline or fragmental, diabasic (?) rock.....	2 feet.	1452 feet.
44.	Same as the last, but also contains some gray slate..	2 feet.	1454 feet.
45.	Same as No. 43.....	1 foot.	1455 feet.
46.	The same fine-grained gray rock predominates; under the microscope it appears to consist of fine glitter- ing grains resembling quartz.....	1 foot.	1456 feet.
47.	Same as the last, but more evidently a fragmental gray quartzite.....	1 foot.	1457 feet.
48.	The same, but somewhat lighter-colored.....	10 feet.	1467 feet.
49.	Same as the last.....	10 feet.	1477 feet.
50.	Gray quartzite, very fine, same as No. 46.....	10 feet.	1487 feet.
51.	The same.....	8 feet.	1495 feet.



52. The same, but some grains are apparently from a somewhat cleavable rock, though not argillitic..... 5 feet. 1500 feet.
53. The same gray rock, evidently slaty and finer-grained .....  $7\frac{1}{2}$  feet. 1507 $\frac{1}{2}$  feet.

*Summary of the Duluth well.*

It appears from the above record that the Duluth well passed through 131 feet of drift materials. It encountered the fragmental rocks of the Cupriferous and found 112 ft. of characteristic strata. It then entered gabbro at 243 ft. which was found to be 220 feet in thickness, extending to 463 feet. Then came a hard red and purplish quarzite. This is interbedded with imperfectly characterized gabbro, with conglomerates consisting largely of brown felsyte pebbles, and with soft, indeterminable rock the drillings of which are very fine or pulverulent, of a dark gray color; the thickness of all the layers (67 ft.) carrying the well down to 530 feet. At the depth of 530 ft. the well entered trap-rock. As this is below the foregoing gabbro it introduces a new element in the stratigraphy of the Cupriferous, the gabbro having been regarded as the lowest of the Cupriferous. This trap, with its associated amygdaloidal beds, some known felsytes (some of them granitic), and fragmental tuffs, continued to the depth of 619 feet, a thickness of 89 feet, when the black slates of the Animike were struck. These slates, with the gray quartzites, and occasional diabasic rocks connected with them, have continued thence to the bottom of the well at 1507 $\frac{1}{2}$  feet. In this formation, at the depth of 1225 feet the operators report the discovery of the mineral water referred to below. But it is quite likely that it was in the drill-hole all the time after passing the Cupriferous formation. Such water was found in the Stillwater well and also in that at Hastings in the Cupriferous, but the mineral contents of that at Duluth are not only more varied but also in far greater amount. Following is the analyses of both. The report of the Duluth analysis was furnished with the drillings, and that from Hastings was analyzed in 1881 at the request of Prof. C. W. Hall.

*Analysis of water from the Duluth deep well.*

An analysis of water taken from the gas well at Short Line Park, near Duluth, made by professor James A. Dodge, of the State University of Minnesota, at the request of Dr. D. A. Strickler, of Duluth, Minn.

	Part per million.	Grains per gallon, U.S.
Siliceous matter.....	200.9	11.718
Carbonate of iron.....	44.6	2.601
Sulphate of magnesia.....	2.0	.117
Chloride of magnesium.....	503.0	29.340
Chloride of calcium.....	16,847.0	982.685
Chloride of sodium.....	15,070.0	879.046
Chloride of potassium.....	500.0	29.165
Bromide of sodium.....	430.0	25.069
Lithium salts.....	traces.	traces.

Total mineral matter.....	33,597.5	1,959.741
Free ammonia.....		.93
Albuminoid ammonia.....		.40

*Analysis of the water from the flowing well at Hastings, reported by Prof. Dodge.*

The following gives the character of the solid residue from the water. Compare Vol. II, of the final report (Dakota county) for an account of this well:

	Grains per gallon.
Silica .....	.62
Carb. lime .....	9.29
“ iron.....	.17
Sulph. mag.....	5.84
Chl. mag.....	1.82
Chl. potass.....	1.15
Chl. sod.....	26.15
Total solid matter.....	45.04

*The deep well at Faribault.* The record of this well could not be obtained. No drillings were preserved. It was reported to be 520 feet in depth, “with signs of gas and anthracite coal.”

*The deep well near the State Fair grounds,* between St. Paul and Minneapolis, in which also the “expert” from Pennsylvania predicted and subsequently “discovered” burning gas, is said to be 500 feet deep. Of this well the record could not be obtained.

*The well in North St. Paul,* in like manner can not be reported, since the record is unknown.

*The deep well in South St Paul,* drilled by the same parties as the last two, under the instigation and advice of the Pennsylvania “expert,” will also go to posterity with no record except as a monument to the infatuation which can be inspired by the positive assertions of a wanton adventurer in the minds of men ignorant of geology but eager for wealth.

In the matter of the drilling of these four wells last mentioned,

all of which have now been abandoned, the advice of the writer was sought, and he unhesitatingly recommended that no money be spent in a search for gas. This opinion was based on the geological structure of this part of the state and the known geological relations of the gas-flowing wells of other states.

#### CONCLUSIONS.

The experience which has resulted from the efforts to find natural burning-gas in Minnesota, as above detailed, gives rise to some reflections and conclusions which it will be well to gather into a final statement.

1. There is a body of geological truth that to the geologist is as inflexible as any natural law, and as sure as any deduction from observed facts. This truth is accepted by all geologists, without exception. When any economic research or any scientific question is presented for solution it must first be compared with these known laws of geology. If it violates none of them the geologist gives his answer accordingly, for these truths are not fluctuating. His answer must be in accord with the facts, and the evidence so far as it exists. If the problem involves elements which lie beyond the scope of the facts in hand, or which are not covered by any established law of the science, his answer must necessarily be *that he does not know*. He may, however, go beyond a statement of ignorance. He may collate the evidence favorable or unfavorable bearing on a hypothetical answer.

2. It is in the realm of this uncertainty that lie most of the problems that the geologist has to answer; and it is here that he sometimes makes the mistake of giving a conclusive answer when he should give a conditional one. A similar mistake is made by some scholastics and so-called philosophers in estimating the value of geological evidence in general. This error is due to a confounding of geological science with geological hypothesis. There is no limit to geological hypothesis, and any bungler or itinerant "expert" may indulge in it; but there is a distinct boundary to the body of truth known as geological science. Sometimes the popular estimate is based on the shifting arena of hypothesis, and geology is charged with being a mass of speculation and contradiction, liable to vary from year to year. The practical geologist, in answering economic problems, has to discriminate rigidly between science and hypothesis, and to adhere unflinchingly to the guidance of science.

3. If under the guidance of science, the geologist states that

neither the Trenton limestone nor the Coal Measures can be found by drilling in a region where the surface rock is the St. Peter sandstone or the Shakopee limestone, he is justified by one of the laws of his science. If further he be asked if there be gas beneath the St. Peter sandstone, his "body of truth" does not give an infallible guide and will not answer positively. It will only answer conditionally. The geologist here can only appeal to such evidence as exists, and can answer, after weighing it *pro* and *con*, by a statement of probability on the side of the preponderance of evidence.

4. It requires but a brief examination of the reports that have been published of the geology of the state to learn that the great formations that furnish gas in the United States are almost wholly wanting in Minnesota; the Trenton only being found in such situation as to give a reason for exploration.

5. The results of all wells that have been sunk in the state, with a primary or remote idea of discovering gas, have confirmed this statement, and have coincided, except in minor matters of detail, with the conclusions that have been expressed and with the published geological maps and reports of the survey.

6. The facts stated in the reports, therefore, may be considered as belonging to the "body of truth" of the science, and can be relied on for future guidance so far as they bear on this economic question.

7. The drilled well at Freeborn has passed through the Trenton limestone, and hence through the lowest known formation that supplies burning gas; and if gas exists, as asserted by the superintendent, in the St. Peter sandstone that lies below the Trenton and is now only repressed by the surrounding and overlying volume of water, it will be, if demonstrated by the efforts that are now being made, a great discovery in the geological environments of the gas problem. It may, hence, become as important as the original discovery of gas in the Trenton limestone at Findlay, and thus add another formation to the list of gas producers.

7. This, however, will require an actual demonstration to be admitted into the "body of truth" of geological science, since the science at present, so far as it has any evidence, pronounces with a strong preponderance of weight against it.

8. So far as the science affords any evidence in favor of gas below the Trenton limestone in Minnesota, it may be summed up about as follows, applying it to the region of Freeborn: There is, perhaps, one chance in ten that the formation which is known



in the northern part of the state as *Animike slates and quartzites*, underlies the county of Freeborn at the depth of about 3,000 feet. In case it were found at that depth there might be, perhaps, one chance in one hundred that it would contain some gas, and one in a thousand that it would afford enough for economic purposes.

#### THE ACTUALITY AND POSSIBLE SOURCE OF THE GAS AT FREEBORN.

The fact still remains that natural burning-gas is found at Freeborn. It rises from a sandy layer in the drift, about seventy-five feet below the surface, and burns freely and even violently when gathered in pipes and ignited. As the drill passed through no Cretaceous strata their presence in the vicinity is rendered more questionable, but still not negatived. As the drill penetrated no vegetable deposit known elsewhere as the "forest bed" its presence is also more questionable. But both these are liable to produce gas, the latter in smaller quantities than the former, and either may exist in the neighborhood and might be struck in case of a drill at some short distance in any direction from the site of the present well. Indeed there is no source for this gas, so far as the writer is aware, except the Cretaceous, or the "forest bed," and he is inclined to refer it as heretofore to the Cretaceous.

The "forest bed" is known to exist in Freeborn county, as well as in Mower, and to extend irregularly and indefinitely southward into northern Iowa. It seems to furnish carbonic acid gas in some wells at Albert Lea, and has been the cause of some trouble in search for good water for domestic use. But it is not invariably the case that carbonic acid is produced by this bed of vegetation. Prof. Orton states that in Ohio a light carburetted hydrogen is struck in the drift deposits much more frequently than carbonic acid.\*

On the other hand a well in Vernon, Blue Earth county, which gives a voluminous discharge of carbonic acid gas, owned by C. B. Frazer, is said to have a record which indicates that the gas originates in the Cretaceous. This well passed through a clay, or shale which is apparently of Cretaceous character and age, and at about 115 feet entered sand. The future must determine the source of the gas that escapes at Freeborn, for the evidence seems almost evenly divided between the Cretaceous and the "forest bed."

\*Report of the Geological Survey of Ohio, Vol. 41, p. 773.



*The latest discovery.* According to the *Freeborn County Standard* of June 6th, published at Albert Lea, a new discovery of gas has been made on Sec. 30, Riceland, about six miles northeast from Albert Lea. The gas here escapes from a well bored to the depth of sixty-three feet, and burns with considerable violence, and in quantity sufficient to operate a ten-horse power engine. The characteristics of this well are identical with those of the shallow wells at Freeborn, and they add further probability to the hypothesis that the gas reservoirs of the region are confined to the drift.



THE GEOLOGICAL AND NATURAL HISTORY SURVEY OF MINNESOTA.

N. H. WINCHELL, STATE GEOLOGIST.

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BULLETIN NO. 1.

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THE HISTORY

OF

GEOLOGICAL SURVEYS

IN MINNESOTA.

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BY N. H. WINCHELL.

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## HISTORY OF GEOLOGICAL SURVEYS IN MINNESOTA.

By N. H. WINCHELL.

The first effort of the State of Minnesota to institute a survey of her domain was made in 1858 by the first Legislature that met after the admission of the state into the Union. No general law was passed, but a reprint was ordered of a portion of former reports by Prof. Daniels on the survey of Wisconsin, in which state Minnesota had then latterly been embraced.

The commissioner of statistics, Joseph A. Wheelock, also included in his official reports for the years 1859 and 1860, general summaries of the physical features and agricultural capabilities of the state, which went far toward recommending the state to eastern immigrants. The facts, however, were derived not so much from original observation as from newspaper articles, reviews and correspondence. These reports were widely distributed and introduced the state, in its diversified natural resources, favorably, to the rest of the Union, which undoubtedly was the prime object of their author.

An abortive attempt to establish a regular geological survey was made by the second State Legislature, which adopted a "concurrent resolution" ordering the appointment of commissioners to report on the geology of the state, and on a plan for a geological survey. These commissioners made separate reports, setting forth the utility of such a survey, but owing to the financial burdens which the young state had to bear, incident to the inauguration of the various public institutions, and to the opposition of governor Ramsey, the Legislature did not take any further action upon the subject.

The Legislature of 1864, however, by joint resolution, authorized the governor to appoint and direct a state geologist. The appointee was Dr. Aug. H. Hanchett, and he associated with himself Mr. Thomas Clark, who had been one of the "commissioners" of the resolution of 1860. These gentlemen each made one report for 1864, that of Mr. Clark containing some valuable information concerning the physical features of the northern



part of the state, but adding little or nothing to the actual geology. For a report of progress, on the first year's work, limited in time and means, the pamphlet containing these two papers may be considered a creditable production; and had the survey been continued as planned by Mr. Clark it might have become useful and successful. But it became apparent that Dr. Hanchett was not intelligently and wholly devoted to the work, and on the passage of a more general act by the Legislature of 1865, the governor conferred the position of state geologist upon Mr. Henry H. Eames.

Mr. Eames made two brief annual reports of progress, one for 1865 and one for 1866. The former is devoted to an account of a "prospecting" tour made by him through the metalliferous region bordering on lake Superior, and the latter to observations on the geology of some of the north central counties of the state. It was owing to the discoveries of Mr. Eames that the "gold fever" centering on Vermilion lake rose in speculative mining circles. This prevailed for about two years, and subsided after the Legislature refused further appropriations for the survey.

The notes and observations of Col. Charles Whittlesey, made in Minnesota at various times, sometimes for parties at private expense and sometimes for the United States government, were printed at the cost of the State of Minnesota, and issued, at Cleveland, Ohio, as a "Report of explorations in the mineral regions of Minnesota during the years 1848, 1859 and 1864," dated 1866. As a geological report this unpretentious brochure is of more value than all the previous reports, issued under the auspices of the state, combined.

In 1865 Mr. N. C. D. Taylor was authorized by act of the Legislature to make surveys for copper in the valley of the St. Croix and of the Kettle rivers, to the aggregate cost of one thousand dollars. A brief report, occupying about one octavo page, was rendered by Mr. Taylor and printed in the executive documents (for 1866?), giving an account of his operations and quoting the verbal opinion of Prof. James Hall.

In 1870 Prof. A. Winchell was appointed by the governor to examine and report on the reputed salt springs at Belle Plaine, with a view to ascertain the propriety of appropriating money to aid in the development of the brine by the State Legislature. The published report is an octavo pamphlet of sixteen pages, and was the last work of the kind done through the instrumentality of the state before the beginning of the present survey.

Those who desire a fuller account of these early surveys and of other similar work in the State of Minnesota, prior to 1872, may consult the final report of the present "geological and natural history survey," Vol. I. It is the purpose of this paper to deal more fully with the progress and history of the present survey.

*History of the Geological and Natural History survey of Minnesota.*

The law which organized this survey was drawn up by president Wm. W. Folwell, of the University of Minnesota. This law, before it was offered in the State Legislature, was shown to some geologists and educators, who might have some opinion or advice to offer as to its provisions. There is no question but one of the prime motives of the law was to introduce another auxiliary force into the state university by making it the centre whence should radiate information concerning the natural features of the state, and toward which should gravitate all collections of natural history that should otherwise be brought to light. It would furnish information, perhaps to the body of students through its officers, to the state at large, and to the country, through its reports; and in its museum would be seen the outward proofs of the resources of the state and the means for illustrating the natural sciences as they should be taught in the university. The actual and minute study of the natural history of the state was, perhaps, a secondary motive, although this is specifically required by the terms of the law. It is a comprehensive law, and was introduced into the state Senate by regent J. S. Pillsbury. Having passed both houses, it was approved by governor Horace Austin, March 1, 1872. It reads as follows:

*Law of the Minnesota survey.*

An act to provide for a geological and natural history survey of the state and to entrust the same to the University of Minnesota.

*Be it enacted by the Legislature of the State of Minnesota:*

SECTION 1. It shall be the duty of the board of regents of the University of Minnesota to cause to be begun as soon as may be practicable, and to carry on a thorough geological and natural history survey of the state.

SEC. 2. The geological survey shall be carried on with a view to a complete account of the mineral kingdom as represented in the state, including the number, order, dip and magnitude of the several geological strata, their richness in ores, coals, clays, peats, salines and mineral waters, marls, cements, building stones and other useful materials, the value of said substances for economical purposes and their accessibility; also an accurate chemical analysis of the various rocks, soils, ores, clays, peats, marls and other mineral substances, of which complete and exact records shall be made.

SEC. 3. The natural history survey shall include, first, an examination of the vegetable productions of the state, embracing all trees, shrubs, herbs and grasses native or naturalized in the state; second, a complete and scientific account of the animal kingdom as properly represented in the state, including all mammalia, fishes, reptiles, birds and insects.

SEC. 4. The said surveys and examinations shall be made in the manner and order following: First, the geological survey proper, together with the necessary and implied mineralogical investigations, all of which shall be undertaken as soon as may be practicable, and be carried forward with such expedition as may be consistent with economy and thoroughness; second, the botanical examinations; third, the zoological investigations; provided, however, that whenever the said board of regents may find it most economical to prosecute different portions of the surveys in conjunction, or that the public interest demands it, they may, in their discretion, depart from the above prescribed order. And in the employment of assistants, in the said surveys the board of regents shall at all times give the preference to the students and graduates of the University of Minnesota, provided the same be well qualified for the duties.

SEC. 5. The said board of regents shall also cause to be collected and tabulated such meteorological statistics as may be needed to account for the variety of climate in the various parts of the state; also to cause to be ascertained [by] barometrical observations or other appropriate means the relative elevations and depressions of the different parts of the state; and also on or before the completion of the said surveys, to cause to be compiled from such actual surveys and measurements as may be necessary, an accurate map of the state, which map when approved by the governor shall be the official map of the state.

SEC. 6. It shall be the duty of said board of regents to cause proper specimens, skillfully prepared, secured and labeled, of all rocks, soils, ores, coals, fossils, cements, building stones, plants, woods, skins and skeletons of animals, birds, insects and fishes, and other mineral, vegetable and animal substances and organisms discovered or examined in the course of said surveys, to be preserved for public inspection, free of cost, in the University of Minnesota, in rooms convenient of access and properly warmed, lighted, ventilated and furnished, and in charge of a proper scientific curator; and they shall also, whenever the same may be practicable, cause duplicates in reasonable numbers and quantities of the above named specimens, to be collected and preserved for the purpose of exchanges with other state universities and scientific institutions, of which latter the Smithsonian Institution at Washington shall have the preference.

SEC. 7. The said board of regents shall cause a geological map of the state to be made, as soon as may be practicable, upon which, by colors and other appropriate means and devices, the various geological formations shall be represented.

SEC. 8. It shall be the duty of the said board of regents, through their president, to make, on or before the second Tuesday in December of each and every year, a report showing the progress of the said surveys, accompanied by such maps, drawings and specifications as may be necessary and proper to exemplify the same to the governor, who shall lay the same before the Legislature; and the said board of regents upon the completion of any separate portion of the said surveys, shall cause to be prepared a memoir or final report, which



shall embody in a convenient manner all useful and important information accumulated in the course of the investigation of the particular department or portion, which report or memoir shall likewise be communicated through the governor to the Legislature.

SEC. 9. To carry out the provisions of this act the sum of one thousand dollars per annum is hereby appropriated, to be drawn and expended by the [said] board of regents of the University of Minnesota.

SEC. 10. This act shall take effect and be in force from and after its approval.

Approved March 1, 1872.

This is the organic law of the survey, and it is still in force in all its provisions. The Legislature, in some of its subsequent sessions, passed laws to facilitate the execution of this, or amplifying some of its provisions, but in no respect has a single clause of this law been abrogated or restricted.

Although the law was passed and approved on the first day of March, the regents took no action looking to its execution till July following, when the writer was summoned to St. Paul from active field work in the State of Ohio to meet the board of regents then in session, and to assume the position of state geologist under the law. Engagements in Ohio, however, would not permit the beginning of the season's work till September.

A moment's examination of the law was sufficient to convince any geologist that the sum of money appropriated for the work was wholly inadequate to the purposes which the law contemplated; and therein it is evident that the Legislature did not so much expect the law would effect a complete survey of the state as that it would pay, in a measure, the services of an officer at the university who should be made useful in any way that the regents could find it convenient to have him work, giving particular attention to the natural sciences. The survey in this position had not an encouraging outlook, and the appointment to its head implied that the man who accepted it would either fail ignominiously or must find some way to increase the revenues that were vital to its continuance and its success. It was in view of this that the first annual report closed with the following recommendation:

*Recommendations concerning the Salt Spring lands.*

The law under which the present survey is being prosecuted appropriates the sum of one thousand dollars per annum. This is too small, for various reasons, the chief of which are:

*First* — It will not pay for the services of a single employé on the survey capable of working under the law. Hence, it well-nigh renders the law inoperative.

*Second* — It does not command the respect and confidence of the citizens of the state and others, and serves as an excuse for refusing aid and co-operation. The survey should be independent of favors for which it now has to beg, sometimes to be scornfully rebuffed.

*Third* — In the survey of those portions of the state inaccessible by public roads, or by railroads, it will be necessary to employ laborers, and incur other expense, for which the sum of one thousand dollars is not sufficient.

*Fourth* — In order to conduct the survey on one thousand dollars per annum, the state geologist must find some other employment a portion of the year.

*Fifth* — The magnitude of the interests involved demands that ample means be allowed for doing the work of the survey thoroughly and without embarrassment.

These considerations ought to induce the legislature to increase the amount now appropriated to a sum sufficient at least to keep one man constantly employed, and to pay all expense of field-work and chemical examinations.

In connection with the subject of increasing the means provided for the geological survey, it is suggested that the state lands known as *salt lands* may be so sold or appropriated, under the management of the board of regents of the university, as to be available for that purpose. It would be in perfect consonance with the original design in the reservation of those lands from sale, if they were placed in the custody of the board of regents, conditioned on their use in the prosecution of the geological and natural history survey of the state.

The law cannot be carried out without the purchase of chemicals and apparatus for the use of the chemical department of the survey, and without the purchase of instruments to be used in the prosecution of the field-work. It is too much to ask the state university, which now pays the services of the chemist of the survey, besides furnishing rooms for laboratory work, to provide for these expenses. There ought to be a special appropriation of several hundred dollars to make these purchases. The board of regents are referred to the accompanying statement of Prof. D. P. Strange, chemist of the survey, for information on this subject.

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In the prosecution of the geological survey proper, after a general reconnaissance, with a view to the determination of the general trend of the formations, and the identification of sufficient characters to decide their ages, it will be necessary to enter on the detailed examination of the state by counties. This more special investigation implies the careful delineation of the outlines of the formations, with all their windings, as they are found in each county, together with a scientific account of the chemical and mineralogical characters of the rocks found therein. In the progress of the survey the specific names of the fossils pertaining to the various formations will be ascertained, and in the end complete lists of these ancient faunas will be made out, to which will be added descriptions and figures to illustrate any new species that may be discovered. These investigations necessarily require much time and study, to say nothing of the labor of collecting and preserving the specimens.

The question of the existence of brine in Minnesota, is one of the most important, in an economical sense, that can be presented for the investigation



of the survey. It should not be hastily answered. Too much is involved to be vested on the result of a guess. Too much, also, is involved to be prejudiced by the failure of unguided expenditures. The tests that may be made ought to be made in the fullest light of all the facts that science, with its generalizations, can throw upon them. It comes within the scope of geological investigation, and ought not to be hazarded in the hands of empirical novices.

The salt springs said to occur in the state may have either of two origins. They may be the result of overflow of extensive salt basins, embraced in the rocky structure of the state, or they may be the result of superficial accumulations similar to the other saline and alkaline deposits that are scattered largely over the western plains. It is not intended now to give this question the discussion its importance demands at the hands of the survey. No investigation of the phenomena of the regions where these springs exist has been made. It is only intended to suggest the importance of correct scientific processes in the future efforts for their development.

It was fortunate for the survey that at this juncture the public had become convinced, pretty generally, that the legislative aid that had been sought by the Belle Plaine salt company, and had been granted by the donation of some of the Salt Spring lands of the state, even contrary to the recommendation of the geologist who had advised against it, was a scheme to make inroads on the Salt Spring lands, more than for the *bona fide* exploitation of the brine springs that were said to exist at Belle Plaine. It was evident that unless some other use were made of this United States land-grant other enterprising communities, or mining companies, would discover salt water, or some other reasons for making inroads on this grant for aid in "developing" such suspected natural wealth. Indeed, the present writer was hardly known to have been appointed state geologist before he was requested to accompany the officers of the Belle Plaine salt company to some other part of the state in order to designate where the next deep well should be sunk for finding brine, at the expense of the Salt Spring lands. Several far-seeing public officers, it seems, at about the same time, suggested that these lands should be saved for some better purpose. Among those who had thus conferred, and had concluded that these lands might be appropriated to the maintenance of the geological and natural history survey of the state, should be mentioned Hon. A. J. Edgerton,\* then state railroad commissioner, Hon. H. B. Wilson, superintendent of public instruction, Hon. O. B. Whitcomb, state auditor, and Senator J. S. Pillsbury, one of the regents of the university. From none of these, however, did the suggestion first come to the writer, but from Mr. W. D. Hurlbut of Rochester,

\* Since United States Senator from Minnesota and Chief Justice of Dakota.

and it was almost solely through his representations that the following rough draft of a law was prepared by the state geologist, and forwarded to Hon. J. S. Pillsbury with a request that he would re-model it according to his judgment, and offer it in the state Senate the following winter. Mr. Pillsbury, however, turned it over to senator Edmund Rice of St. Paul, who introduced it *verbatim* as drafted, and it so passed both houses and was approved by the governor.

*The appropriation of the Salt Spring lands.*

*Be it enacted by the Legislature of the State of Minnesota:*

SECTION 1. The state lands known as *state salt lands*, donated by the general government to aid in the development of the brines in the State of Minnesota, shall be transferred to the custody and control of the board of regents of the University of Minnesota. By said board of regents these lands may be sold in such manner, or in such amounts, consistent with the laws of the State of Minnesota, as they may see fit; the proceeds thereof being held in trust by them, and only disbursed in accordance with the law ordering a geological and natural history survey of the state.

SEC. 2. It shall be the duty of the said board of regents, as soon as practicable, to cause a full and scientific investigation, and report on the salt springs of the state, with a view to the early development of such brine deposits as may exist within the state.

SCE. 3. The board of regents of the university shall cause the immediate survey and investigation of the peat deposits of the State of Minnesota, accompanied by such tests and chemical examinations as may be necessary to show their economical value, and their usefulness for the purpose of common fuel; a full report thereon to be presented to the Legislature as soon as practicable.

SEC. 4. The sum of two thousand dollars is hereby appropriated annually (in lieu of one thousand dollars) for the purpose of the geological and natural history survey until such time as the proceeds of the sales of the salt lands shall equal that amount, when such annual appropriation shall cease.

SEC. 5. The sum of five hundred dollars is hereby appropriated for the purchase of apparatus and chemicals for the use of the geological and natural history survey, the same to be expended by the order of the board of regents of the University of Minnesota.

SEC. 6. It shall be the duty of the board of regents of the University of Minnesota to cause duplicate geological specimens to be collected, and to furnish to each of the Normal Schools suites of such specimens after the university collection has become complete.

SEC. 7. When the geological and natural history survey of the state shall have been completed, the final report on the same by the said board of regents shall give a full statement of the sales of the salt lands hereby given into the custody and control of the board of regents of the University of Minnesota, together with the amount of moneys received therefrom, and of the balance, if any, left in the hands of said board of regents.

SEC. 8. This act shall take effect and be in force from and after its passage.

Approved March 10, 1873.

It is reasonable to suppose that after the passage of this law all private schemes for the development of doubtful salt springs, and the reduction of the fund by misguided attempts at exploration would cease, but that was not the case. A bill was introduced in the House of Representatives at the next session of the Legislature to grant the Belle Plaine salt company more land in aid of their enterprise, requiring the board of regents to give up to that company a certain amount of the salt spring lands for every one hundred feet deeper that company should sink their well at Belle Plaine, aggregating six sections of land in all. It was duly referred to the proper committee, but was never reported for consideration by the House.

*Deficit in the Salt Spring lands.*

The Salt Spring lands originally granted the state aggregated 46,080 acres. But by various losses and state grants, and by conflicts with other United States grants, the selections made by the state not having been duly certified and recovered from the available public domain, the amount that was found capable of being used for the survey was only 18,771 acres. The officers of the United States government solely were responsible for this deficit, since governor Sibley, the first governor of the state, had complied with the law and all the terms of the grant, in having them selected.\* When this fact was represented to the state Legislature a memorial was passed, addressed to Congress, asking the privilege of making re-selections of land in the state of Minnesota sufficient to make the entire grant good to the State; such permission was granted, and twenty-four sections were added to the available land-grant of the geological survey. These, however, were not turned over to the regents for this purpose till the winter of 1885, when the Legislature passed the following:

AN ACT to transfer to the custody and control of the board of regents of the University of Minnesota the lands granted by Congress to the State by an act entitled "An act granting lands to the State of Minnesota in lieu of certain lands heretofore granted to said State," approved March third (3d), one thousand eight hundred and seventy-nine (1879) to authorize the said board to sell such lands and dispose of the proceeds of such sales.

WHEREAS, The state lands known as state salt lands, were by an act approved March tenth (10), one thousand eight hundred and seventy-three (1873), chapter one hundred and thirty-three (133), general laws of one thousand eight

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\* Compare *Miscellaneous Publications of the survey*: Report on the Salt Spring lands due the State of Minnesota; a history of all official transactions relating to them, and a statement of their amount and location. N. H. Winchell, 1874.



hundred and seventy-three (1873), transferred to the custody and control of the board of regents of the University of Minnesota, to be by said regents sold, and the proceeds thereof held in trust by them, and disbursed in accordance with the law ordering a geological and natural history survey of the State; and

WHEREAS, It was found that certain parcels of such state lands had been otherwise disposed of by the United States to actual settlers upon such lands, for which indemnity lands have since been granted to the State by an act of Congress approved March third (3), one thousand eight hundred and seventy-nine (1879); therefore

*Be it enacted by the Legislature of the State of Minnesota:*

SECTION 1. That the lands granted by Congress to this State by an act entitled "An act granting lands to the State of Minnesota in lieu of certain lands heretofore granted to said state," approved March third (3), one thousand eight hundred and seventy-nine (1879), be and the same are hereby transferred to the custody and control of the board of regents of the University of Minnesota, which lands the said board may sell in such amounts as they may deem most expedient and beneficial, the proceeds thereof being held in trust by them, and only disbursed in accordance with the law ordering a geological and natural history survey of the State, and the said board shall make report of their doings in the premises, as provided by law.

SEC. 2. This act shall take effect and be in force from and after its passage.  
Approved Feb. 24, 1885.

#### *Publication of the annual reports.*

The Legislature of 1876 passed the following law relating to the printing of the annual reports of progress of the survey:

AN ACT relating to the printing of the reports of the board of regents of the University of Minnesota on the progress of the geological and natural history survey of the State.

*Be it enacted by the Legislature of the State of Minnesota:*

SECTION 1. One thousand copies of that portion of the annual report of the board of regents of the University of Minnesota which embraces the report of the state geologist on the progress of the geological and natural history survey of the State shall hereafter be paged and bound separately and shall be subject to the disposition of the said board of regents.

SEC. 2. Whenever in the progress of said survey a full and final report shall be made on the geology of any of the counties of the State, five hundred extra copies of each county report so made by the board of regents shall be printed for the use of the counties so reported on; said copies being subject to the order of the county commissioners of said county.

This act shall take effect and be in force from and after its passage.

Approved March 6, 1876.

The annual reports are transmitted to the governor by the regents of the university as a part of their report on the affairs of the university, and they are published as such; and the ex-

pense is provided for regularly by the *printing commission* who make estimates, in advance, of the amount of money needed for all the public printing, reporting the same to the Legislature for appropriation for the current or coming year. Of these reports sixteen have been published, one for each year since the survey began.

*Publications of the Geological and Natural History Survey of Minnesota.*

- THE FIRST ANNUAL REPORT ON THE GEOLOGICAL AND NATURAL HISTORY SURVEY OF MINNESOTA, FOR THE YEAR 1872. 112 pp., 8 vo.; with a colored geological map of the State. By *N. H. Winchell*. Contains a list of earlier publications relating to the geology and geography of Minnesota, and a sketch of the geology of the State as known in 1872. Second edition identical with the original, 1884.
- THE SECOND ANNUAL REPORT ON THE GEOLOGICAL AND NATURAL HISTORY SURVEY OF MINNESOTA, FOR THE YEAR 1873. 145 pp., 8 vo.; with illustrations. By *N. H. Winchell* and *S. F. Peckham*.
- THE THIRD ANNUAL REPORT ON THE GEOLOGICAL AND NATURAL HISTORY SURVEY OF MINNESOTA, FOR THE YEAR 1874. 42 pp., 8 vo.; with two county maps. By *N. H. Winchell*.
- THE FOURTH ANNUAL REPORT ON THE GEOLOGICAL AND NATURAL HISTORY SURVEY OF MINNESOTA, FOR THE YEAR 1875. 162 pp., 8 vo.; with four county maps and a number of other illustrations. By *N. H. Winchell*, assisted by *M. W. Harrington*.
- THE FIFTH ANNUAL REPORT ON THE GEOLOGICAL AND NATURAL HISTORY SURVEY OF MINNESOTA, FOR THE YEAR 1876. 248 pp., 8vo.; four colored maps and several other illustrations. By *N. H. Winchell*, with reports on Chemistry by *S. F. Peckham*, Ornithology by *P. L. Hatch*, Entomology by *Allen Whitman*, and on Fungi by *A. E. Johnson*.
- THE SIXTH ANNUAL REPORT ON THE GEOLOGICAL AND NATURAL HISTORY SURVEY OF MINNESOTA, FOR THE YEAR 1877. 226 pp. 8vo.; three geological maps and several other illustrations. By *N. H. Winchell*, with reports on Chemical Analysis by *S. F. Peckham*, on Ornithology by *P. L. Hatch*, on Entomology by *Allen Whitman*, and on Geology of Rice county by *L. B. Sperry*.
- THE SEVENTH ANNUAL REPORT ON THE GEOLOGICAL AND NATURAL HISTORY SURVEY OF MINNESOTA, FOR THE YEAR 1878. 123 pp., 8vo.; with twenty-one plates. By *N. H. Winchell*, with a field report by *C. W. Hall*, Chemical Analyses by *S. F. Peckham*, Ornithology by *P. L. Hatch*, a list of the plants of the north shore of lake Superior by *B. Juni*, and an Appendix by *C. L. Herrick* on the Microscopic Entomozoa of Minnesota (twenty-one plates).
- THE EIGHTH ANNUAL REPORT ON THE GEOLOGICAL AND NATURAL HISTORY SURVEY OF MINNESOTA, FOR THE YEAR 1879. 183 pp., 8vo.; one plate (Castoroides). By *N. H. Winchell*. Containing a statement of the methods of Microscopic Lithology, a discussion of the Cupriferous Series



in Minnesota, and descriptions of new species of brachiopoda from the Trenton and Hudson River formations; with reports on the Geology of Central and Western Minnesota, by *Warren Upham*; on the lake Superior region, by *C. W. Hall*; lists of Birds and of Plants from Lake Superior, by *Thomas S. Roberts*; Chemical Analyses by *S. F. Peckham*; report by *P. L. Hatch*; and four Appendixes.

THE NINTH ANNUAL REPORT ON THE GEOLOGICAL AND NATURAL HISTORY SURVEY OF MINNESOTA, FOR THE YEAR 1880. 392 pp., 8 vo.; three appendixes, two wood cut illustrations, and six plates. By *N. H. Winchell*. Containing field descriptions of 442 crystalline rock samples, and notes on their geological relations, from the northern part of the state; new brachiopoda; the water supply of the Red River Valley, and simple tests of the qualities of water; with reports on the Upper Mississippi region, by *O. E. Garrison*; on the Hydrology of Minnesota, by *C. M. Terry*; on the Glacial Drift and its Terminal Moraines, by *Warren Upham*; Chemical Analyses by *J. A. Dodge*; a list of the Birds of Minnesota, by *P. L. Hatch*; and of the Winter Birds, by *Thomas S. Roberts*.

THE TENTH ANNUAL REPORT ON THE GEOLOGICAL AND NATURAL HISTORY SURVEY OF MINNESOTA, FOR THE YEAR 1881. 254 pp., 8 vo.; with ten wood cut illustrations, and fifteen plates. By *N. H. Winchell*. Containing field descriptions of about 400 rock samples, and notes on their geological relation, continued from the last report; the Potsdam sandstone; typical thin sections of the rocks of the Cupriferous Series; and the deep well at the "C" Washburn mill, Minneapolis; with Geological notes by *J. H. Kloos*; Chemical Analyses by *J. A. Dodge*; and papers on the Crustacea of the fresh waters of Minnesota (eleven plates), by *C. L. Herrick*.

THE ELEVENTH ANNUAL REPORT ON THE GEOLOGICAL AND NATURAL HISTORY SURVEY OF MINNESOTA, FOR THE YEAR 1882. 219 pp., 8 vo.; with three wood cut illustrations and one plate. By *N. H. Winchell*. Containing a report on the Mineralogy of Minnesota, and a note on the Age of the rocks of the Mesabi and Vermilion iron districts; with papers on the Crystalline rocks of Minnesota, by *A. Streng* and *J. H. Kloos*; on Rock outcrops in Central Minnesota, and on lake Agassiz, by *Warren Upham*; on the Iron region of Northern Minnesota, by *Albert H. Chester*; Chemical Analyses by *J. A. Dodge*; and an Appendix containing Minnesota Laws relating to Mines and Mining, abstracted by *C. L. Herrick*.

THE TWELFTH ANNUAL REPORT ON THE GEOLOGICAL AND NATURAL HISTORY SURVEY OF MINNESOTA, FOR THE YEAR 1884. Summary report, containing palæontological notes, and a paper on the comparative strength of Minnesota and New England granites, 26 pages, by *N. H. Winchell*; final report on the Crustacea of Minnesota included in the orders Cladocera and Copepoda. 192 pages and 30 plates, by *C. L. Herrick*, and a catalogue of the flora of Minnesota, 193 pages, with ore map showing the forest distribution, by *Warren Upham*.

THE THIRTEENTH ANNUAL REPORT ON THE GEOLOGICAL AND NATURAL HISTORY SURVEY OF MINNESOTA, FOR THE YEAR 1884. 196 pages. Geological reconnoissances, the Vermilion iron ores, the crystalline rocks of Minnesota, and of the Northwest, the Humbolt salt well in Kittson county, records of various deep wells in the State, fossils from the red

quartzite at Pipestone, reports on the New Orleans Exposition and on the General Museum, by *N. H. Winchell*; Geology of Minnehaha county, Dakota, by *Warren Upham*; Chemical report by *Prof. James A. Dodge*; Minnesota geographical names derived from the Dakota language by *Prof. A. W. Williamson*; insects injurious to the cabbage, by *O. W. Oestlund*; Geological notes in Blue Earth county, by *Prof. A. F. Bechdolt*, and on a fossil elephant from Stockton by *Prof. John Holzinger*; papers on the Cretaceous fossils in the boulder clays in the Northwest by *George M. Dawson*, and by *Woodward and Thomas*, and notes on the Mammals of Big Stone Lake and vicinity by *C. L. Herrick*.

THE FOURTEENTH ANNUAL REPORT ON THE GEOLOGICAL AND NATURAL HISTORY SURVEY OF MINNESOTA, FOR THE YEAR 1885. 354 pp.; two plates of fossils and two wood cuts. Containing summary report, notes on some deep wells in Minnesota, descriptions of four new species of fossils, a supposed natural alloy of copper and silver from the north shore of lake Superior, and revision of the stratigraphy of the Cambrian in Minnesota, with the following papers by assistants, viz.: List of the Aphididæ of Minnesota, with descriptions of some new species, by *O. W. Oestlund*; Report on the Lower Silurian Bryozoa, with preliminary descriptions of some new species, by *E. O. Ulrich*; Conchological notes by *U. S. Grant*; Bibliography of the Foraminifera, recent and fossil, by *Anthony Woodward*.

THE FIFTEENTH ANNUAL REPORT ON THE GEOLOGICAL AND NATURAL HISTORY SURVEY OF MINNESOTA, FOR THE YEAR 1886. 493 pp., 8vo.; 120 diagram illustrations and sketches in the text, and two colored maps; embracing reports on observations on the crystalline rocks in the northeastern part of the state, by *Alexander Winchell*, *N. H. Winchell* and *H. V. Winchell*; Chemical report by *Prof. J. A. Dodge*; additional railroad elevation, by *N. H. Winchell*; list of Minnesota geographical names derived from the Chippewa language, by *Rev. J. A. Gilfillan*, and notes on Illæni, describing three new species, by *Aug. F. Foerste*.

THE SIXTEENTH ANNUAL REPORT ON THE GEOLOGICAL AND NATURAL HISTORY SURVEY OF MINNESOTA, FOR THE YEAR 1887. 504 pp.; two plates, one map and eighty-eight other illustrations. Contains observations in the area of the original Huronian by the state geologist and by *Alexander Winchell*; also on the Marquette, the Gogebic and the Penokee iron regions; also reports on further observations in the northeastern part of the State, by the same; also a report by *Horace V. Winchell* on the region of the Big Fork and Little Fork rivers, and Rainy lake; also notes on the molluscan fauna of the state by *Uly S. Grant* and *John M. Holzinger*.

*The publication of the Final Report.*

The Legislature of 1885 also made provision for the publication of the final report of the survey by the enactment of the following general law.

AN ACT relating to the publication of the report of the geological and natural history survey of the State.

*Be it enacted by the Legislature of the State of Minnesota:*

SECTION 1. The governor, the secretary of state and the state geologist are hereby created a commission for the printing and publication of the reports of the regents of the university on the geological and natural history survey of the State.

SEC. 2. It shall be their duty to supervise the printing of the final reports of said survey, and the engraving of the accompanying maps and illustrations, in such style and manner as they shall determine and judge best calculated to exhibit to the people of the State, the natural resources of the State as required by the law creating the geological and natural history survey.

SEC. 3. They shall cause to be republished in the same manner the third (3d), fourth (4th) and fifth (5th) reports of progress of said survey, at as early a date as practicable, in an edition of two thousand copies.

SEC. 4. The volumes of the final report of said survey, as they may be prepared by the state geologist from time to time, shall be issued in an edition of five thousand (5,000) copies each, and shall be distributed, in the name of the board of regents of the university, under the direction of the state geologist, to scientific and educational institutions, and to individuals, as follows: To the library of each chartered college and scientific institution in Minnesota, three (3) copies each; to each normal school, three (3) copies; to the libraries of the institute for the deaf and mute, the insane asylums, the state prison, and every public library in the state not otherwise designated, one (1) copy each; to each of the offices in the capitol, one (1) copy; to each member of the board of regents, three (3) copies; to the library of the state university two hundred (200) copies; to the Historical Society, and to the Minnesota academy of sciences, ten (10) copies each; to each newspaper published in the State, one (1) copy each; to each senator and representative of the present Legislature, one (1) copy; to the governor and lieutenant governor, each one (1) copy; to each assistant on the survey who has furnished manuscript or illustrations published in the report, three (3) copies; to the general office of each railroad that has furnished aid to the survey, three copies; to the library of each high school, furnishing students fitted for the freshman class of the state university, one (1) copy; to the state library of each state in the Union, one (1) copy; to each state university and each college of agriculture and mechanic arts, one (1) copy; to geologists and naturalists of Minnesota, fifty (50) copies; to the geologists and naturalists of other states, two hundred (200) copies; to other colleges and scientific institutions in the United States, one hundred (100) copies; to foreign institutions and scientists, one hundred (100) copies; and to the state geologist, twenty-five (25) copies. The remainder shall be deposited in the state university, and shall be sold at such prices as the board of regents may determine, and the proceeds of



such sales shall be used by said regents for the purchase of apparatus and books for the survey, and after its completion, for the departments of natural science at the state university.

SEC. 5. The expense of printing, engraving, binding and distribution of said reports shall be paid out of any moneys not otherwise appropriated, in the state treasury, on warrants of the state auditor approved by the governor and secretary of state.

SEC. 6. The commissioners hereby appointed shall perform the duties herein designated without further compensation than the payment of the actual expenses incurred in the discharge thereof.

SEC. 7. This act shall take effect and be in force from and after its passage.  
Approved March 7, 1885.

Before this law took effect the first volume of the final report had been printed and the second was well under way of publication. The final report is ordered by the same law that orders the annual reports, and every provision that can be construed for the publication of the latter is binding for the former. This view was held by the standing printing commission, and when the regents tendered Vol. I. of the final report the secretary of state gave orders for its publication as one of the documents of the state. Still, inasmuch as there might be a difference of opinion as to the binding obligation on the proper officers to make provision for the final report, it was declared in the foregoing law that such volumes *shall be issued and shall be distributed* and that *the expense of printing, engraving, and distribution shall be paid out of any moneys not otherwise appropriated in the state treasury*. Thus the publication of the results of the survey is made a regulated function of the printing bureau of the state, and can no more be omitted, in the plans for publishing the documents of the state, without neglect of duty, than can any others of the state documents which by law are required to be presented to the governor.

In accordance with this law the same Legislature appropriated twelve thousand dollars intended to cover the expense of publishing volumes II. and III. of the final report. But, by a curious proviso such as sometimes creep into laws passed in the hurried manner of modern American legislation, this fund was required to be expended by the regular commissioners of printing, and not by the special commission which was created for the publication of the final report. The appropriation was found to be but little more than sufficient for publishing one of the volumes (Vol. II.), and that was issued in the fall of 1888. The final report of the survey, so far as published, is described as follows:

THE GEOLOGY OF MINNESOTA. VOL. I. OF THE FINAL REPORT. 1872-1882. xiv. and 697 pp., quarto; illustrated by 43 plates and 52 figures. By *N. H. Winchell*, assisted by *Warren Upham*. Containing an historical sketch of explorations and surveys in Minnesota, the general physical features of the state, the building stones, and the Geology of Houston, Winona, Fillmore, Mower, Freeborn, Pipestone, Rock and Rice counties, by *N. H. Winchell*; the Geology of Olmsted, Dodge and Steele counties, by *M. W. Harrington*; and the Geology of Waseca, Blue Earth, Faribault, Watonwan, Martin, Cottonwood, Jackson, Murray, Nobles, Brown, Redwood, Yellow Medicine, Lyon, Lincoln, Big Stone, Lac qui Parle and Le Sueur counties, by *Warren Upham*. Distributed gratuitously to all public libraries and county auditors' offices in the state, to other state libraries and state universities, and to leading geologists and scientific societies; the remainder are held for sale at the cost of publication, \$3.50 per copy in cloth, or \$5 in grained half roan binding upon application to Prof. N. H. Winchell, Minneapolis.

THE GEOLOGY OF MINNESOTA. VOL. II. OF THE FINAL REPORT. 1882-1885. xxiv. and 695 pp., quarto; illustrated by 42 plates and 32 figures. By *N. H. Winchell*, assisted by *Warren Upham*, containing chapters on the Geology of Wabasha, Goodhue, Dakota, Hennepin, Ramsey and Washington counties, by *N. H. Winchell*, and on Carver, Scott, Sibley, Nicollet, McLeod, Renville, Swift, Chippewa, Kandiyohi, Meeker, Wright, Chisago, Isanti, Anoka, Benton, Sherburne, Stearns, Douglas, Pope, Grant, Stevens, Wilkin, Traverse, Otter Tail, Wadena, Todd, Crow Wing, Morrison, Mille Lacs, Kanabec, Pine, Becker and Clay counties, by *Warren Upham*. Distributed according to law in the same manner as Vol. I. above.

### *The Bulletins of the Survey.*

The Legislature of 1885 enacted the following law, requiring the state geologist to make actual explorations by drilling or digging, for the discovery of economic products, and providing for the publication of the reports of such discoveries, and of other scientific contributions:

AN ACT to extend the work of the geological and natural history survey of the State.

*Be it enacted by the Legislature of the State of Minnesota:*

SECTION 1. It shall be the duty of the state geologist, to make practical and actual tests by drilling or digging or other excavation in the earth, such as he shall deem best suited to accomplish the purpose of this bill, for the discovery of any of the hidden mineral resources of the state, such as iron, copper, silver, gold, coal, gas, coal-oil, common salt, or any other valuable material that he may deem likely to exist in any of the rock strata of the state.

SEC. 2. In determining the localities at which such testing and exploring shall be done he shall be guided by such geological facts as he may possess or may obtain, which may indicate the existence of any of the substances which it is the purpose of this act to discover. He shall also be guided by the proportionate amount of money that the owner, or owners, of the land on which such exploration may be proposed, shall contribute to pay the cost of such exploration.



SEC. 3. It shall be the duty of the state geologist to report at once to the board of regents all discoveries, either of economic or scientific interest to the state, that may be made by such testing and exploration. Such report shall be published by the board of regents in the same manner as now provided for the publication of the annual reports of the geological and natural history survey of the state, and shall be paid for by the same fund; *provided*, that any important mineral discoveries, or other scientific contributions to the geological and natural history survey, that the said state geologist may deem necessary for immediate publication, shall not be suppressed until the regular report of the board of regents, but shall be issued from time to time under the direction of said state geologist.

SEC. 4. That the sum of five thousand (5,000) dollars for the year A. D. one thousand eight hundred and eighty-seven (1887) and the sum of five thousand (5,000) dollars for the year A. D. one thousand eight hundred and eighty-eight (1888) is hereby appropriated out of any moneys not otherwise appropriated for the purpose of defraying the expense of said tests. The investigations provided for in this act shall not be conducted in the interest of any mining company or corporation.

SEC. 5. This act shall take effect and be in force from and after its passage. Approved March 8th, 1887.

In accordance with this law it was deemed best to establish a series of minor publications or "bulletins," which might be issued from time to time, at longer or shorter intervals, and the following have appeared:

#### BULLETINS.

- No. 1. History of Geological Surveys in Minnesota. By *N. H. Winchell*.
- No. 2. Preliminary Description of the Peridotites, Gabbros, Diabases and Andesytes of Minnesota. By *M. E. Wadsworth*.
- No. 3. Report of work done in Botany in the year 1886. By *J. C. Arthur*.
- No. 4. A Synopsis of the Aphididæ of Minnesota. By *O. W. Oestlund*.
- No. 5. Natural Gas in Minnesota. By *N. H. Winchell*.

#### *Miscellaneous publications.*

These embrace some circulars and announcements that were designed in the earlier years of the survey, to bring to the public attention some of the plans and needs of the survey, in which the co-operation and assistance of interested individuals were necessary. Most of them contain nothing of scientific value, and but small editions were printed. They are the following:

- 1. CIRCULAR No. 1. A copy of the law ordering the survey, and a note asking the co-operation of citizens and others. 1872.
- 2. PEAT FOR DOMESTIC FUEL. 1874. Edited by *S. F. Peckham*.
- 3. REPORT ON THE SALT SPRING LANDS DUE THE STATE OF MINNESOTA. A history of all official transactions relating to them, and a statement of their amount and location. 1874. By *N. H. Winchell*.

4. A CATALOGUE OF THE PLANTS OF MINNESOTA; prepared in 1865 by *Dr. I. A. Lapham*, contributed to the Geological and Natural History Survey of Minnesota, and published by the State Horticultural Society in 1875.
5. CIRCULAR No. 2. Relating to botany, and giving general directions for collecting information on the flora of the State. 1876.
6. CIRCULAR No. 3. The establishment and organization of the Museum. 1877.
7. CIRCULAR No. 4. Relating to duplicates in the Museum and exchanges. 1878.
8. THE BUILDING STONES, CLAYS, LIMES, CEMENTS, ROOFING, FLAGGING AND PAVING STONES OF MINNESOTA. A special report by *N. H. Winchell*. 1880.
9. CIRCULAR No. 5. To Builders and Quarrymen. Relating to the collection of two-inch cubes of building stones for physical tests of strength, and for chemical examination, and samples of clay and brick for the general museum. 1880.
10. CIRCULAR No. 6. To owners of mills and unimproved water-powers. Relating to the Hydrology and water-powers of Minnesota. 1880.

The cost of these publications cannot be stated definitely. They have all been printed by the state contractor for public printing at the rates ruling for "printing of the third class," which is let to the lowest bidder by the standing printing commission consisting of the secretary of state, the state auditor, and the state treasurer. The price varies from year to year. The engraving is estimated and contracted for separately as required. The edition of the annual reports and the bulletins is 2,400 copies and of the final report 5,000 copies. The former are distributed gratuitously, and the latter are sold at \$3.50 and \$5.00 per volume according to style of binding and quality of paper, though of the latter a generous free distribution is made to libraries and scientists.

#### *Museum and Library.*

The General Museum of the university is the outgrowth of the survey. It is stored in the university buildings. Its equipment as well as maintenance is wholly derived from the survey fund. It is a means of instruction to the students in natural science and of enlightenment and pleasure to all visitors. The last report (17th) gave the entries in the geological and mineralogical department 6827, and in the zoological 1633, embracing several times as many specimens. In archæology the entries number 198. Besides these, several valuable collections have been deposited by their owners for temporary exhibition and safe-keeping. The rooms are well-warmed and furnished with secure cases for all specimens.

The library of the survey contains perhaps one thousand books and pamphlets, obtained by exchange and by purchase. It is stored in the office of the state geologist at the university and is used only by the officers of the survey or by students specially interested. It is not a public library and has no regulations for its use.

*Cost of the Survey proper.*

When the survey began it had an annual appropriation of one thousand dollars. This was increased to two thousand at the first meeting of the Legislature, and five hundred dollars were also appropriated for chemical apparatus for the survey. The cash appropriation of two thousand dollars per year was to continue till the revenue from the Salt Spring lands amounted to that sum and was discontinued in 1879. The Salt Spring lands, aggregating, with the deficit afterward secured from Congress, the sum of 38,643 acres, which could not, in accordance with the terms of existing law, be sold for less than five dollars per acre, were placed in the hands of the regents by the same Legislature to carry on the survey. This gave at once a prospective aggregate net sum of \$193,215 with which the survey should be carried on in its various branches.

The reports of the treasurer of the university have been consulted for facts respecting the receipts and expenditures of the regents for the survey, and they show the following results. This record is complete to July 31, 1888, the date of the last fiscal statement of the university :

*Sums reported received by the university treasurer for the geological survey.*

Oct. 2, 1872.	Cash from the state treasurer.....	\$1,000.00
June 16, 1873.	“ “ “ .....	2,500.00
Aug. 13, 1874.	“ “ “ .....	2,000.00
June 5, 1875.	“ “ “ .....	2,000.00
June (?), 1876.	“ “ “ .....	2,000.00
July 1877.	“ “ “ .....	2,000.00
Apr. 5, 1878.	“ “ “ .....	1,000.00
June 26, 1878.	“ “ “ .....	1,000.00
Oct. 30, 1878.	Cash sale of Salt Spring land (balance).....	2,893.64
Dec. 1879.	“ from state treasurer .....	2,000.00
Feb. 5, 1880.	“ sales of Salt Spring land .....	3,140.44
Apr. 24, 1880.	“ “ “ .....	957.92
Apr. 24, 1880.	“ “ “ .....	390.00
July 2, 1880.	“ “ “ .....	941.23
Aug. 5, 1880.	“ “ “ .....	67.40

Aug. 7, 1880.	Cash sales of Salt Spring land.....	17.73
Dec. 10, 1880.	" " " .....	1,138.17
Dec. 10, 1880.	" " " .....	170.00
Jan. 26, 1881.	" " " .....	18.84
June 28, 1881.	" " " .....	941.23
July 13, 1881.	" " " .....	146.48
July 25, 1881.	" " " .....	17.73
Oct. 29, 1881.	" " " .....	1,009.36
Nov. 10, 1881.	" " " .....	25.16
Jan. 16, 1882.	" " " .....	25.00
May 26, 1882.	" " " .....	598.45
June 20, 1882.	" " " .....	693.90
June 24, 1882.	" " " .....	152.32
June 24, 1882.	" " " .....	152.32
June 24, 1882.	" " " .....	152.32
June 24, 1882.	" " " .....	151.13
June 24, 1882.	" " " .....	285.60
June 24, 1882.	" " " .....	47.60
July 1, 1882.	" " " .....	1,083.58
July 6, 1882.	" " " .....	539.70
July 21, 1882.	" " " .....	951.21
Aug. 4, 1882.	" " " .....	775.19
Dec. 5, 1882.	" " " .....	919.21
Dec. 27, 1882.	" " " .....	11.90
Jan. 18, 1883.	" " " .....	975.00
Feb. 9, 1883.	" " " .....	170.00
Feb. 14, 1883.	" " " .....	1,238.15
Mar. 10, 1883.	" " " .....	116.40
Mar. 13, 1883.	" " " .....	231.43
Apr. 17, 1883.	" " " .....	215.60
June 9, 1883.	" " " .....	764.32
June 28, 1883.	" " " .....	228.48
June 30, 1883.	" " " .....	322.43
July 7, 1883.	" " " .....	1,116.13
July 14, 1883.	" " " .....	246.68
July 16, 1883.	" " " .....	2,176.00
July 26, 1883.	" " " .....	600.00
Nov. 22, 1883.	" " " .....	50.55
Jan. 10, 1884.	" " " .....	581.94
Feb. 19, 1884.	" " " .....	539.70
May 15, 1884.	" " " .....	240.00
June 7, 1884.	" " " .....	325.20
July 3, 1884.	" " " .....	550.91
July 12, 1884.	" " " .....	597.06
Aug. 6, 1884.	" " " .....	91.98
Oct. 6, 1884.	" " " .....	527.10
Oct. 18, 1884.	" " " .....	210.50
Oct. 22, 1884.	" " " .....	687.67
Nov. 5, 1884.	" " " .....	187.66



Apr. 22, 1885.	Cash sales of Salt Spring land.....	116.90
June 16, 1885.	" " " .....	546.00
June 23, 1885.	" " " .....	288.70
June 30, 1885.	" " " .....	212.50
July 6, 1885.	" " " .....	550.91
July 8, 1885.	" " " .....	758.71
Sept. 3, 1885.	" " " .....	467.50
Sept. 23, 1885.	" " " .....	71.04
Oct. 24, 1885.	" " " .....	81.85
Oct. 26, 1885.	" " " .....	787.40
Nov. 16, 1885.	" " " .....	121.00
Nov. 24, 1885.	" " " .....	421.44
Mar. 31, 1886.	" " " .....	1,372.41
Apr. 6, 1886.	" " " .....	217.50
May 22, 1886.	" " " .....	780.50
June 24, 1886.	" " " .....	84.00
July 17, 1886.	" " " .....	39.90
July 2, 1886.	" " " .....	71.62
July 10, 1886.	" " " .....	244.92
July 20, 1886.	" " " .....	494.50
July 27, 1886.	" " " .....	56.41
Oct. 20, 1886.	" " " .....	187.20
Oct. 22, 1886.	" " " .....	1,537.09
Nov. 4, 1886.	" " " .....	68.20
Nov. 10, 1886.	" " " .....	194.80
Apr. 15, 1887.	" " " .....	25.20
June 7, 1887.	" " " .....	68.91
June 21, 1887.	" " " .....	56.40
June 23, 1887.	" " " .....	152.40
July 8, 1887.	" " " .....	71.46
July 20, 1887.	" " " .....	476.00
Aug. 18, 1887.	" " " .....	75.38
Oct. 13, 1887.	" " " .....	23.28
Oct. 29, 1887.	" " " .....	1,976.98
Nov. 21, 1887.	" " " .....	45.00
Jan. 27, 1888.	" " " .....	640.00
Jan. 27, 1888.	" " " .....	172.50
Feb. 27, 1888.	" " " .....	19.33
Feb. 29, 1888.	" " " .....	25.35
Mar. 13, 1888.	" " " .....	1.00
Mar. 22, 1888.	" " " .....	139.20
June 20, 1888.	" " " .....	7.00
July 2, 1888.	" " " .....	71.69
July 3, 1888.	" " " .....	476.00
July 7, 1888.	" " " .....	75.38
July 3, 1888.	" " " .....	71.46
July 14, 1888.	" " " .....	200.00
July 31, 1888.	" " " .....	56.40

Total receipts for the survey to July 31, 1888.....\$61,605.07



Of this sum \$15,000 were received from the state treasurer as proceeds from the laws of 1872 and 1873, making direct cash appropriation for its support, and the rest, or \$46,105.07, has been derived from the sales of the Salt Spring lands.

The expenses of the survey, including the General Museum as reported by the regents through the university treasurer, from 1872 to July 31, 1888, amount to \$81,061.89, making, for seventeen years, an annual expense of \$4,768.34, and showing the Salt Spring fund indebted to the university \$19,456.82.

In the treasurer's account with the survey fund, however, are numerous items charged which were incurred for the department of instruction in the university, which was for some years in the charge of the state geologist, which expenses can only by the broadest construction of the law of the survey, be considered as promoting the work of the survey. These aggregate the sum of \$12,510.80, and would reduce the total cost of the survey proper and the General Museum to \$68,551.09, and to an annual cost of \$4,032.41.

But, *per contra*, the survey has reaped substantial benefits from its association with the university. It has office and storage rooms, and laboratories in the university buildings free of rent, and access to libraries and apparatus that to gather together, or to consult elsewhere, would be at great expense.

The geological and natural history survey is one of the important wards of the university, and is constantly demonstrating the wisdom of the law that made it one of its functions to conduct it. The mutual benefits that spring from this relationship need not be dwelt upon here.

#### *Administration.*

The regents manage the sales of the Salt Spring lands. In this they are limited in their judgment only by the state law that requires that no state land shall be sold for less than five dollars per acre.

The administration of the survey proper has been almost wholly in the hands of the state geologist. He lays such plans as he chooses, governed by his own appreciation of the financial, economic, scientific and educational circumstances that may be influenced by them. These plans have almost always been submitted to the regents, or to their executive committee, prior to their execution, for their formal approval. In some instances, certain public or wide-spread want for information, expressed in corre-

spondence, or in the public press, such as the demand for information concerning the grasshopper-plague and the ways and means for alleviating the evil, the call for peat-fuel on the woodless prairies, the ravages of insects injurious to horticulture, the general belief in the existence of coal in the state or of mineral wealth in the northern part of the state, the demand for authoritative statements founded on scientific data, touching the nature and extent of our forests, or the quality of our soils, or the water used for domestic purposes, or the probability of brine for the manufacture of salt, or the existence of the necessary conditions for artesian water or burning-gas, or the quality of our native building stones,—these have all been elements that have influenced the plans formed from year to year. While answering these purposes as nearly as possible, the survey has been rendered useful to numerous individuals by private correspondence, preventing the useless expense of ill-guided exploration in many instances, and directly influential in promoting economic industry by advising expenditures where a reasonable expectation existed of remunerative results. Individual instances need not be mentioned.

This economic side of the survey has been kept in mind constantly, though it has not been made conspicuous. This was politic as well as just. The annual reports embody common patent facts, and description cast in a semi-scientific mould. They are addressed primarily to a home constituency, in order to show them the utility of the work of the survey. As the survey becomes grounded in the good will of our own citizens it is strengthened for doing more advanced work, and at the same time finds a constituency that is ready to welcome more strictly scientific publications. It is highly probable that if such a moderate course had not been pursued, the Legislature, instead of always manifesting a good will and determination to have the work well sustained, would have refused the financial aid that has been asked of it, and the work might have had the short-lived existence that has been the fate of so many other state surveys.

*Personnel of the survey.*

N. H. Winchell, state geologist .....	1872	—
Warren Upham, assistant geologist.....	1879-1885	
C. W. Hall, assistant geologist.....	1878-1880	
C. M. Terry, laboratory assistant.....	1879-1881	
O. E. Garrison.....	Occasional field assistant	
P. L. Hatch, ornithologist.....	1876	—
C. L. Herrick, zoological collector and laboratory assistant in charge of Mammals.....	1876-1885	
L. B. Sperry, geological assistant.....	1877	
P. B. Rose, chemist.....	1873	
S. F. Peckham, chemist.....	1873-1880	
Jas. A. Dodge, chemist.....	1881	—
M. W. Harrington, assistant geologist.....	1875	
Allen Whitman, entomologist.....	1876-1878	
Benj. Juni, Botanical and field assistant.....	1878	
P. P. Furber, field assistant.....	1873	
C. E. Chatfield, field assistant.....	1873	
W. E. Leonard, botanical and field assistant.....	1875	
Horace V. Winchell, field geologist and laboratory assistant.....	1881, 1885	—
Albert H. Chester, report on the iron region.....	1882	
Leo Lesquereux, palæobotanist.....	1883, 1886	
O. W. Oestland, entomologist and laboratory assistant.....	1885	—
U. S. Grant, conchology and field geologist.....	1885-1888	
J. C. Arthur, botanist.....	1885-1888	
E. O. Ulrich, bryozoans.....	1885	—
F. L. Washburn, assistant in ornithology.....	1885	
A. Woodward, } B. W. Thomas, } Foraminifera of the Cretaceous.....	1886-1889	
Frank N. Stacy, field assistant.....	1886-1887	
A. W. Jones, field assistant.....	1886	
Alexander Winchell, assistant geologist.....	1886-1887	
A. D. Meeds, field assistant.....	1888	
M. E. Wadsworth, assistant geologist.....	1886	
L. W. Bailey, Jr., botany.....	1886	
E. W. D. Holway, botany.....	1886	
W. F. Trussell, field assistant.....	1887	
H. W. Fairbanks, field assistant.....	1887	
S. W. Ford, draughtsman.....	1887	
W. D. Willard, field assistant.....	1888	

The selection of these men has been made by the state geologist, but their appointment has always been passed on by the regents or by their executive committee. The only guide in making the selections, aside from availability and fitness for the work, has been the clause in the general law requiring the employment of students and graduates of the University of Minnesota when such can be found qualified for the work, and a general enactment of the regents to the effect that the professor of chemistry at the university is, by virtue of his position, to be the chemist of the survey.

These men have not been continuously employed, even for the time expressed above, except in the case of the state geologist, Warren Upham, C. M. Terry, and O. W. Oestlund, but they have been engaged during the season of field-work or to perform some specific work for which they had such compensation as the service demanded.

The salary of the state geologist is \$2,400.

The salary of Warren Upham was \$1,200.

The salary of C. M. Terry was \$1,200.

The salary of O. W. Oestlund is \$900.

The salary of C. L. Herrick was from \$600 to \$1,200.

The chemist is paid a per centum of schedule prices for work he does for the survey. Dr. P. L. Hatch, the ornithologist, is working for the survey from pure love of birds, and asked only the payment of his field and traveling expenses. Other employes have been paid by the month from fifty to two hundred dollars, or by the job.

#### *Co-operation of the U. S. Coast and Geodetic Survey.*

Congress some years ago authorized the United States Coast and Geodetic survey to co operate with the state geological surveys in the triangulation and correct mapping of those states in which the State Legislatures may have provided for such geological and topographical surveys. Several of the States having thus been aided by the Coast and Geodetic survey, the attention of Gov. L. F. Hubbard was called to the matter by the writer in a letter dated March 19, 1884, asking him to make, or authorize to be made, a formal application to the superintendent of the Coast survey for similar aid to the Minnesota survey. Such a request was forwarded to the superintendent, and, on the appropriation by Congress of a small sum specifically for the purpose, a system of triangulation was begun at the university



under the direction of major C. O. Boutelle. This has been continued by Prof. W. R. Hoag, and has resulted in the accurate establishment of many prominent objects in the topography, referred to a base line situated between Minneapolis and St. Paul. In general the present design is to make connection at La Crosse, with the earlier triangulation carried on by the Coast survey across the state of Wisconsin. By means of this triangulation Prof. Hoag made an accurate measurement of the gorge of the Mississippi river between Fort Snelling and the brink of the Falls of St. Anthony, and prepared a map of the gorge itself. By employing the determination of latitude and longitude of the smaller cupola of the university by the Lake survey, under Gen. C. B. Comstock\* in 1873, the latitude and longitude of any point covered by the triangulation can be computed.

The result of this triangulation will be felt in the future more appreciatively than at the present time. It necessarily goes slowly, in consequence of the exactness demanded by the nature of the work. It will be for the State to supplement this triangulation with topographic work suitable for the construction of outline and contour or other topographic maps. This is what the geological survey will have to do by and by. Strictly, a topographic map should precede the geological. But in the case of Minnesota much of the state had been mapped geologically before the commencement of careful topographic mapping. This is less to be regretted in a state like Minnesota, where a large portion of the area is nearly flat, and where already the United States township survey had preceded and had furnished a series of maps that are tolerably correct. It could not be avoided, however, since the geological survey could not wait for the uncertain action of Congress, on a question which had not then been brought to its attention. Whatever errors there may be found in the future in the published geological maps of the survey can be corrected readily by reference to the topographic map of the state by counties, that is to be, based on the triangulation by the United States Coast and Geodetic survey. Two of the eastern States (Massachusetts and New Jersey) are actively engaged in this final topographic mapping, that of New Jersey being nearly complete.

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\* See the fourth annual report, p. 5.



*Benefits resulting from the survey.*

Of these it were more appropriate that some one else should write. If no mention be made here of the invisible benefits that result to the state, and particularly to the university by the prosecution of this survey, it will perhaps be proper to enumerate some of the tangible beneficial results that have accrued to the people of the state directly through the agency of the survey.

1. Beginning with the commencement of the survey the first that should be mentioned is the fact that the professorship of geology and mineralogy in the university, with the added work of instruction in botany and zoology, was maintained six years solely at the expense of the survey fund. This also includes much of the equipment, cases, maps and apparatus of that department. The same fund has also placed several hundred dollars worth of books in the general library of the university.

2. The *Salt Spring lands* of the state were saved from being gradually devoured by such enterprises as that of the Belle Plaine Salt company, and were appropriated, through the direct interposition of the survey at a critical juncture, to the prosecution of this far-reaching public enterprise.

3. On the discovery, after a laborious investigation of the official records, of the fact that the State was still entitled to a large additional amount of land under the original grant, the initial efforts of the state geologist were successful in obtaining from the United States, about fifteen thousand acres of indemnity lands which have since been devoted by the Legislature to the support of the survey.

4. The General Museum of the University is one of the tangible beneficial results of the survey.

5. There was a wide-spread belief among the citizens in the southern part of the state, prevalent when the survey began, that workable coal of the age of that found in Iowa could be discovered by making the proper exploration, and individuals had incurred considerable expense in looking for it. One of the first efforts of the survey was to settle this question; and the published result of such investigation went far toward stopping further useless expenditure of money.

6. The agitation of this subject by unscrupulous prospectors and well-drillers culminated in a proposed law, which was introduced in the Legislature of 1883 (?) offering a reward of twenty thousand dollars for the discovery, in the state, of "coal" in work-

able quantities. This law was so drawn that it did not discriminate as to the age or the quality of the coal to be discovered, and any one familiar with the Cretaceous lignites of the state, could have made a legitimate demand for the reward within sixty days after the adjournment of the Legislature. Through the agency and advice of the state geologist this law was adversely reported by the committee having it in charge. It is only on the principle of "a penny saved is two pence gained" that this can be claimed as one of the tangible effects of the survey.

7. A similar law ordering the appointment of a "commissioner of peat," at a salary of two thousand dollars per year, was also defeated in the State Legislature, largely through the influence of the survey in 1874.

8. A law ordering the donation of further subsidy to the Belle Plaine salt company, and another for the investigation of the grasshopper-plague, and another appointing a state mineralogist with special reference to supposed great wealth of the state in gold and silver, each looking to the unguided expenditure of the revenues of the state, were severally proposed in the State Legislature, and were either rejected or shown to be unnecessary by the existence and the agency of the survey.

9. In the prosecution of the regular work of the survey general attention has been called to the economic resources of the state. The survey has been directly instrumental either in investigating in the first instance, or in guiding by counsel when once begun, nearly all the industries of the state that arise from the rocky substructure. This has been done officially and by private correspondence. The native building-stones, especially, have been compared with those from other states, and some of their excellencies have been brought out prominently, resulting in a great increase of the use of stone native to Minnesota.

10. In 1877 an examination was made of the water used for domestic purposes in the western part of the state. It had been discovered that very many of the common wells were foul, and that serious diseases that frequently terminated fatally were traceable to the use of the water in this condition. So general and wide-spread was this difficulty that serious alarm was felt by parties who were largely interested in the settlement and habitability of the prairies, particularly in the valley of the Red river of the North, lest the growing evil should render the country unfit for general agricultural occupancy. But the examination showed that the evil was due, not to any unhealthfulness

inherent in the water but to the general habit of using white pine planks for curbing in the wells. In the open air, the water of the prairies, which is naturally somewhat alkaline, confined in the impervious clay-reservoirs, such as nearly every well was, will act rapidly on any organic matter that comes in contact with it. The pitch of the pine was thus converted into organic acids, giving off sulphuretted hydrogen. Infusorial organic germs took up their abode in the foul waters, and the natural result of the use of such water inevitably followed. It was at once recommended that the use of wooden curbing be abandoned and that in its place some earthen, stone, brick or iron substance be used. This recommendation was widely published, both in Minnesota, and in the newspapers of Manitoba.

The consequence was a rapid decline of the evil. Many wells which had been abandoned were re-curbed with other materials. It was very soon known that pine well-curbing generated disease, and in a year or so nothing more, or very little, was heard further concerning the supposed foul waters of the western prairie portion of the state. The correction of this evil, and the removal of the suppressed alarm that was felt by some capitalists and by the health officers of the state, may be considered one of the most important visible benefits that have resulted from the survey.

11. At the same time the survey called attention to the possibility of obtaining artesian water at a moderate depth in the drift deposits over a wide tract of country in the northwestern part of the state, a circumstance that has latterly been widely improved with the most satisfactory results.

While these material benefits can easily be enumerated, those that are invisible cannot so readily be pointed out. Some good must result from a diffusion of knowledge concerning the physiological features of the state, and from the publication of accurate statements concerning its natural, undeveloped resources. There must be some benefit to the state in having its geology and natural history known. The scientific facts that are ascertained help to swell the data on which important conclusions are based, and to point out needed corrections in others that may have been published.

*Scientific results of the Survey.*

The additions to science that have sprung from the survey cannot be exactly enumerated. They are the common property of educators and scientists who may wish to make use of them.



Many facts have been published, the value of which cannot now be estimated, but they will go with other facts, some now known, and others to be learned, in Minnesota or elsewhere, to construct, by and by, general principles of interpretation of nature by which man becomes better and better acquainted with the laws and the circumstances that environ him, and with the great history of which he forms a part. Not in all cases have the conclusions, to which the published facts point, been stated, nor indeed have they been known. The principles deducible from a body of facts have to be the last fruits of an investigation, and in the case of a geological survey, while the indicated results may be foreshadowed by an examination of such incomplete data as the survey may afford from time to time, the final conclusions can be given only after the search for facts has been finished. Some such partial results have been published in the annual reports, and some important general truths have been announced in the final volumes (Vols. I. and II.) that have been issued.

In order, however, to indicate more definitely some of the scientific results of the work of the survey as they appear at present, the following enumeration is given, with references to the pages of the various reports in which the publication was made.

#### IN GEOLOGY.

1. Origin of kames, or "hogbacks," supposed to be due to streams running on the ice and in gorges in the ice at the time of the glacial epoch, First Report, p. 62. This was first suggested in a report on Delaware county, Ohio [Geology of Ohio, Vol. II., p. 305] and a little later by N. O. Holtz, of the Geol. Sur. of Sweden [Geol. Fören. i Stockholm Forh. Band III., No. 3] and Warren Upham. [Geol. N. H., Vol. III., pp. 13 and 14.]

2. Origin of river-gravels and of "glacial lakes" on the open upland, and drift-covered prairies, First Report, p. 62.

3. Former existence of a lake of fresh water over the Red River valley, in northwestern part of the state. First Report, p. 63; Sixth, p. 31; named *lake Agassiz*, Eighth Report, p. 84; its approximate extent, Tenth Report, pp. 5, 141. [This lake was first suggested by D. D. Owen.\*]

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\*Geology of Wisconsin, Iowa and Minnesota, p. 175, *et seq.* The suggestion of Owen was enlarged on by Henry Yule Hind, who added some definite data. Reports of progress; together with a preliminary and general report on the Assiniboine and Saskatchewan Exploring Expedition, made under instructions from the provincial secretary, Canada, by Henry Yule Hind. Presented to both Houses of Parliament by Her Majesty's command, August, 1860. London, 1860, pp. 178-181. Also, Narrative of the Canadian Red River Expedition of 1857, and of the Assiniboine and Saskatchewan Expedition of 1858. Two Vols., 1860, Vol. II., p. 230 *et seq.*

4. Suggestion of two glacial epochs in Minnesota. First Report, p. 61; Third, p. 185; Fourth, p. 62; Fifth, p. 36. [See also *Geology of Ohio*, Vol II., pp. 266-67, 303, 330.]

5. Separation of the Potsdam sandstone from the St. Croix sandstone. First Report, p. 68; Fifth, p. 29; Tenth, p. 123.

6. Probable non-existence of the Carboniferous rocks in Minnesota. Second Report, p. 76.

7. Separation of the "Lower Magnesian" into its two parts and the establishment of the sandstone member between them. The Jordan sandstone named, Second Report, p. 138; The St. Lawrence limestone named, Second Report, p. 152; defined, Fourth, p. 32; Eighth, p. 103. The Shakopee limestone named, Second Report, p. 138; defined, Fourteenth, p. 325.

8. The decayed condition of the granites underneath the Cretaceous, in the Minnesota valley. Second Report, p. 163.

9. Establishment of latitude and longitude at various points in Minnesota through the aid of the U. S. Lake Survey. Fourth Report, p. 384.

10. The Cretaceous unconformable over the Cambrian at Mankato. Second Report, p. 178.

11. First fossils in the St. Peter sandstone. Fourth Report, p. 41.

12. Cause of the driftless area. Fifth Report, p. 36.

13. Approximate establishment of the date of the second, or last, glacial epoch, by the recession of the falls of St. Anthony. Fifth Report, p. 156; Final Report, Vol. II., p. 313.

14. The slates at Northern Pacific Junction the same formation as those at Little Falls. Sixth Report, p. 49.

15. Probable palæolithic man at Little Falls. Sixth Report, p. 53.

16. Definition of "Mesabi iron range" in Minnesota. Seventh Report, p. 21; Eleventh, p. 155; Thirteenth, pp. 24, 37.

17. Ten new species of fossils. Eighth Report, p. 60.

18. Three new species of fossils. Ninth Report, p. 115.

19. Position and extent of glacial moraines in Minnesota. Eighth Report, p. 72; Ninth, p. 182.

20. *Castoroides Ohioensis* at Minneapolis. Eighth Report, p. 181.

21. Unconformity between the Grand Portage slates [Ani-mike] and the talcose or sericitic schists [Keewatin] at Gunflint lake. Ninth Report, p. 82; Tenth Report, p. 88; Tenth, p. 132; Eleventh, p. 168; Sixteenth, pp. 69, 73, 67, 108, 239, 258, 268, 323, 357.



22. Extent of the moraines of the second glacial epoch in Minnesota and Iowa. Ninth Report, p. 298.

23. Titanic ore a constituent part of the gabbro. Tenth Report, p. 80; Fifteenth Report, p. 212.

24. The Labradorian Laurentian [the gabbro] extends, with some contemporary syenite, from Duluth to Little Saganaga lake and further eastward. Tenth Report, p. 98-101, 113.

25. The Quartz porphyry of the Great Palisades a part of the Cupriferous, and the equivalent of the "Red Rock," or red syenite associated with the gabbro. Ninth Report, pp. 36, 39, 58; Tenth, pp. 66, 75, 77, 99, 101, 110, 112; Thirteenth, p. 36.

26. Discovery of the Ogishke conglomerate. Tenth Report, p. 89.

27. The Animike the equivalent of the Taconic. Tenth Report, p. 132; Eleventh, p. 168; Thirteenth, p. 131.

28. Definition of the beaches of lake Agassiz. Eleventh Report, p. 141.

29. The Vermilion and Mesabi iron ranges visited and described. Ninth Report, pp. 103, 108; Eleventh, pp. 155, 168; Thirteenth Report, p. 20.

30. One new species of fossil. Twelfth Report, p. 8.

31. The iron ore of the Mesabi range in a different formation from that of the Vermilion range. Thirteenth Report, pp. 22 (fig. 5), 24, 37; Sixteenth, p. 79.

32. Three iron ore formations in Minnesota. Thirteenth Report, p. 24; Fifteenth, p. 212.

33. Paradoxides and Lingula (new species) in the red quartzite (so-called Huronian) at Pipestone. Thirteenth Report, p. 65.

34. The "upper Laurentian," or Norian, the equivalent of the gabbro, or "Mesabi range," of Minnesota. Thirteenth Report, pp. 127, 140.

35. The Taconic the equivalent of the Huronian. Thirteenth Report, p. 135; Sixteenth, p. 170.

36. Foraminifera of the Cretaceous in the boulder clays of Minnesota. Thirteenth Report, p. 164.

37. Elephas primigenius in Winona county. Thirteenth Report, p. 147.

38. Thirty-nine new fossil species. Fourteenth Report, p. 57.

39. One new family of fossils. Fourteenth Report, p. 104.

40. One new genus of fossils. Fourteenth Report, p. 83.

41. Three new genera of fossils. Fourteenth Report, p. 107.

42. Four new species of fossils. Fourteenth Report, p. 313.

43. The Vermilion group, or crystalline schists named. Fifteenth Report, p. 4; conformable with the Laurentian gneiss, Fifteenth Report, pp. 127, 178, 296; Sixteenth, p. 335; Seventeenth, p. 32.

The jaspilyte embraced in basic eruptive rock now converted to chlorite schists. Fifteenth Report, pp. 221, 269, 319, 326; Seventeenth Report, pp. 37-42, 123.

44. Mica schist derived from hornblende schist. Fifteenth Report, pp. 338, 357; Seventeenth, p. 32.

45. Derivation of gneiss *in situ* from fragmental rock. Fifteenth Report, pp. 353, 361, 368; Sixteenth, pp. 69, 81, 104, 107.

46. Three new species of fossils. Fifteenth Report, p. 478.

47. Stratigraphic position of the Animike. Fifteenth Report, p. 356; Sixteenth, pp. 79, 81, 87, 108.

48. A driftless area in N. E. Minnesota. Fifteenth Report, p. 350.

49. Potsdam (or primordial) quartzite of S. W. Minnesota the equivalent of the upper quartzite of the Huronian in Canada. Sixteenth Report, p. 22.

50. Gabbro and felsyte in the area of the original Huronian. Sixteenth Report, p. 29, 27.

51. The Animike the equivalent of the Huronian. Sixteenth Report, pp. 38, 352.

52. The upper Huronian (or Potsdam) quartzite unconformable over the iron ore formation at Negaunee, Mich. Sixteenth Report, p. 44; and at Ishpeming, Sixteenth Report, p. 46; and at Bessemer, Sixteenth Report, p. 55.

53. The Gogebic iron ore on the horizon of the Animike of Minnesota. Sixteenth Report, p. 59.

54. The "Laurentian" overlies the Gogebic strata at Ironwood, Mich. Sixteenth Report, p. 58.

55. The Keewatin schists conformable with the Vermilion mica schists. Sixteenth Report, pp. 76, 350; Seventeenth, p. 37.

56. The Vermilion sediments largely of eruptive origin, but principally distributed by sedimentation. Sixteenth Report, p. 77.

57. The Animike becomes nearly vertical, and embraces a part of the great Ogishke conglomerate. Sixteenth Report, pp. 91, 98.

58. "Laurentian" gneiss overlying Keewatin strata. Sixteenth Report, p. 104.

59. The Vermilion ore not Huronian. Sixteenth Report, p. 175.

60. Two unconformable slate formations in the Marquette region. Sixteenth Report, pp. 178, 359; Seventeenth, p. 43.

61. Conglomerate in Laurentian gneiss. Sixteenth Report, pp. 219, 293, 298, 334.

62. The jaspilyte not of eruptive origin but arranged by sedimentary deposition. Fifteenth Report, pp. 223-247.

63. Suggestion that the crystalline schists (Vermilion series) may be due to hydro-thermal action at deep levels, on the volcanic tuffs, stratified by sedimentary action, of the age of the Keewatin, and may occur at different levels in the Keewatin strata. Seventeenth Report, p. 36.

64. Demonstration by the deep well at Stillwater, that the Kewenawan rocks are not of Mesozoic age. Bulletin No. 5, p. 26.

65. The gabbro outflow, of the age of the Pewabic [Potsdam?] quartzite. Sixteenth Report, p. 88; Bulletin No. 5, p. 34. (Section of the Duluth deep well.)

66. Microscopic description of the peridotites, gabbros, diabases and andesytes of the state. Bulletin No. 2.

#### IN ZOOLOGY.

1. Twenty-seven species of mammals named from the vicinity of Big Stone lake, one variety new. Thirteenth Report.

2. Two hundred eighty-one species of birds credited to the state. Ninth Report.

3. One hundred species of aphids credited to the state, forty-two of which are new to science. Fourteenth Report and Bulletin No. 4.

4. Eighty-one species of Crustaceans credited to the state, of which twenty-seven are new to science. Fifth, Seventh, Tenth, and Twelfth Reports.

5. Eighty-seven species of mollusks are credited to the state. Fourteenth and Sixteenth Reports.

6. Eighty-nine species of mollusks are reported from Winona county. Sixteenth Report.

#### IN BOTANY.

1. Fungi in Minnesota, 558 species identified. Fifth Report. [Published simultaneously in the Bulletins of the Minnesota Academy of Sciences.]

2. Other plants identified in Minnesota, 2107. Twelfth Report and Bulletin No. 3.

3. Thirteen species and four varieties of plants new to science. Twelfth Report and Bulletin No. 4.

4. Definition of the forested area of the state, and of the latitude limits of some of the trees. Twelfth Report.

#### THE FUTURE WORK OF THE SURVEY.

Besides the foregoing results, there are important scientific memoirs and reports that await publication. These form two further final volumes, and were offered for publication at the last meeting of the State Legislature. One contains the final reports on Birds and on Mammals, and the other is mainly palæontological. The palæontological volume will be No. 3 of the final volumes.

The unfinished work of the geological survey proper lies in the northern portion of the state, embracing the crystalline rocks and the various questions of economic and technical geology that pertain to them. This is the most important, as it is the most difficult and costly, of all the work yet done by the survey. A large amount of this kind of work has been done. It remains to thoroughly examine the specimens collected, give their relations, construct the geological maps and to publish the results.

And when this survey is finished, it can be considered only a commencement of the research that will yet be conducted on the geology of the state. It is an effort to put into systematic relationships some of the obvious facts that can easiest and quickest be gathered up by a geological observer. So far as it goes it is useful, and is absolutely necessary to the future geologist who would inquire further into these relationships. It will furnish for him a broad stepping-stone from which he may examine more minutely many things that now have to be passed over unstudied, just as the survey of D. D. Owen has furnished for us an earlier classification from which to take departure in all our examinations.









THE GEOLOGICAL  
AND  
NATURAL HISTORY SURVEY  
OF  
MINNESOTA.

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*THE SEVENTEENTH ANNUAL REPORT.*

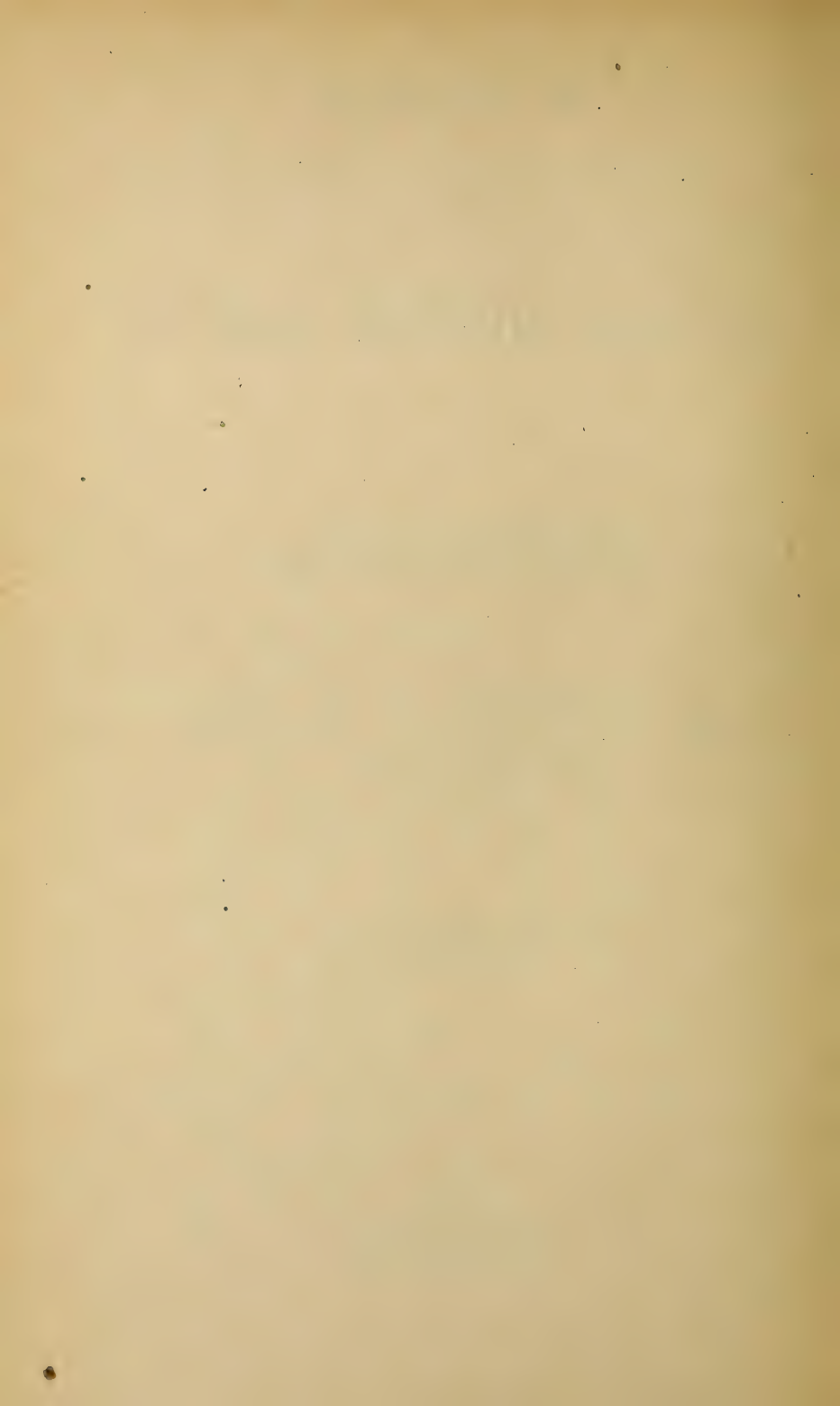
*FOR THE YEAR 1888.*

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N H. WINCHELL,  
*STATE GEOLOGIST.*

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ST. PAUL, MINN.:  
THE PIONEER PRESS COMPANY  
1889.



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## OF THE

# UNIVERSITY OF MINNESOTA.

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Hon. Henry H. Sibley, St. Paul, <i>president</i> ,	-	-	-	-	-	-	1891
Hon. Gordon E. Cole, Faribault,	-	-	-	-	-	-	1891
Hon. Wm. Liggett, Benson,	-	-	-	-	-	-	1891
Hon. William R. Merriam, St. Paul, the governor of the state,	-	-	-	-	-	-	<i>ex-officio</i>
Hon. David L. Kiehle, St. Paul, <i>recording secretary</i> , the superintendent of public instruction,	-	-	-	-	-	-	<i>ex-officio</i>
Cyrus Northrop, Minneapolis, <i>corresponding secretary</i> , the president of the university,	-	-	-	-	-	-	<i>ex-officio</i>

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## TREASURER OF THE UNIVERSITY.

Hon. H. P. Browne,                      -              Address, Commercial Bank, Minneapolis, Minn.





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## ADDRESS.

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THE UNIVERSITY OF MINNESOTA, }  
MINNEAPOLIS, March 31, 1889. }

*To the President of the University,*

DEAR SIR: I have to communicate again an annual report on the progress of the geological and natural history survey of the state, being the seventeenth in consecutive order. Like the last two, this report pertains almost exclusively to the geology of the northeastern part of the state, and is accompanied by some text illustrations.

Respectfully, your obedient servant,

N. H. WINCHELL,

*State geologist and curator of the general museum.*



# REPORT.

## I.

### SUMMARY STATEMENT FOR 1888.

The work done in the season of 1888 in consequence of the supplementary aid that was rendered the survey by the special appropriation and law of the Legislature of 1887, as mentioned in the last report, will be found reported elsewhere. The explorations for natural gas carried on within the state, whether by private enterprise or by the aid of the special fund, are detailed, with some considerations relative to the general subject of gas in Minnesota, in Bulletin No. 5. The special field-work which was directed, under the same law, to the discovery and definition of the iron-resources of the northeastern part of the state, will be included in this report. But the whole subject in general of the geology of the iron ores of Minnesota will find place in Bulletin No. 6.

There were two parties in the field during the season. One was occupied, in the first part of the season, in making collections of rock-samples from certain typical crystalline formations in typical localities. This was under the direction of Mr. Uly S. Grant. At the same time some new facts were observed. These, with notes made by him later in the season when occupied more specially with the examination of the iron-ore beds, are gathered together by him in a formal report which accompanies this.

The other party was during the whole season at work on the iron-ore beds. This was under the guidance of my son, Mr. Horace V. Winchell, whose report on his work will also be found accompanying this

The work of the season has added materially to our exact knowledge of the geology of the northeastern part of the state, and particularly to that of the nature and relations of the iron ores of the state. A general presentation of this knowledge, in

a somewhat systematic manner, has been attempted in this report; but it must be admitted, notwithstanding the time spent on the study, and field-observations that have been recorded, there are still some important, and many less important, questions which the survey cannot answer. But with a consciousness that, however exhaustive the research might be made, there would be questions still unsolved, and that there is a general wish for a full and "final" presentation of the geology of that part of the state so far as present knowledge will yield it, and also feeling that the time has been long that the survey has been going on, and that the working span of one man's life cannot be depended on for indefinite extension, I am constrained to say that we shall enter now upon the preparation of the final report covering the northern part of the state. There will be some supplementary examination to be made, but this will be not very costly, and can be executed while the preparation of the report is in progress.

Volume II of the final report was issued in December, 1888. It is a quarto of about 700 pages, forty-two plates and thirty-two figures, of the same style as Vol. I.

A considerable portion of Vol. III is also ready, and the entire volume will be finished at once. It will contain, along with the paleontology of the strata discussed in Vols. I and II, an account of their systematic relations to the geology of the Northwest. There is also, in readiness for publication, a volume devoted to the birds and mammals of the state, prepared by Dr. P. L. Hatch and Prof. C. L. Herrick. These two volumes should be published at once, in style uniform with those already issued.

The monograph of Messrs. Woodward & Thomas on the microscopic fauna of the Cretaceous, which has been in process of preparation several years, has been completed by those gentlemen and has been transmitted for publication. It will form a chapter in Vol. III. Mr. Ulrich's work on the bryozoa of the Trenton was interrupted unfortunately, when it had proceeded so far as the engraving of the plates, eight having been completed and delivered. This was owing to the exhaustion of the fund for publication by the unexpected cost of Vol. II. Dr. Leo Lesquereux's report on the fossil flora of the Cretaceous in Minnesota, with the accompanying plates, is also intended for Vol. III. It is only an act of reasonable justice to a scientific author that his contributions be published as soon as possible. His

rights are not all satisfied by the simple payment of the money involved in his contract to prepare the report. The value of scientific work, especially scientific authorship, is not measured by the manual labor involved in it. So its claims are not satisfied when the material money payment is made. The author expects, and he has a right to demand, that his work shall be published. His researches, so far as they are in new fields, may be covered by later investigators and be announced before his see the light. This reward for scientific authorship, while it cannot be expressed in dollars and cents, and cannot perhaps be included in definite terms in the contract with the author when he undertakes the work of any investigation, yet acts as a powerful stimulant and as a final element in the compensation he reasonably counts upon. He naturally is backward in asserting it; and it is a lamentable fact that credit for some valuable research and some discoveries has been lost to their authors because of the suppression, or at least the tardy publication, of their reports until after others had made the same discoveries and had announced them to the public. In the case of a state survey such delay not only injures the individual but also reflects on the value of the official reports. Wherever scientific facts are first published, there they are forever acknowledged and referred to by future authors. If the state has incurred the cost of an investigation, its chief value is lost if the credit of its discoveries cannot be secured by early publication, and if the same facts are published elsewhere.

The condition of the museum and of the unexamined specimens is about as has been stated in some of the late reports. Not only are the museum halls full to overflowing, but the so-called laboratories of the survey are also full. It has become necessary to deposit the boxes of rock samples in these rooms. All the packing, handling and labeling has been done heretofore in these rooms. Recently, owing to the storage of a large part of the surplus copies of Vols. I and II in these rooms, there has not been room left for doing this work, and it has been transferred to the office, on the second floor of the building.

A record of museum accessions is herewith again reported, the same having been crowded out of the last two reports. Its publication subserves the double purpose of acknowledging donations and of permanence of a record easy to consult in case of desire to find any specimen in the museum, or any information concerning any specimen when once the specimen is in hand. The

method of labeling all specimens collected has been found very safe and permanent. It consists of mixing a solution of common shellac, such as can be got of a druggist, with some coloring material and carefully placing the numbers with a small brush or with a stick, on the specimens, by hand. The shellac, being dissolved in alcohol quickly hardens by the evaporation of the alcohol, and embracing the coloring material in the hardened mass, has the quality of permanence of color and insolubility in water. The upper right hand corner of the specimen is used. In case the natural surface is rough, or if the color of the letter to be attached would be so nearly the same as the rock as to render the designation indistinct, the surface is first colored over in a small rectangular spot with some other color of the same kind of material, and when hardened the number is applied over it. The specimens have been numbered as below.

The regular museum series, such as have been placed on exhibition, whether rock-samples, minerals or fossils, have their numbers in *red*, produced by mixing the shellac with "vermilion red."

The series of N. H. Winchell, mainly crystalline rocks, are marked *blue*, produced by mixing indigo with the dissolved shellac.

The series of A. Winchell, also crystalline, are marked *black*, produced by mixing the shellac with india ink.

The samples collected by H. V. Winchell are marked *pink*, a mixture of vermilion red and white lead with the dissolved shellac.

The samples collected and reported by Mr. U. S. Grant are marked *green*, made by mixing the shellac with paris-green.

The specimens in the archæological collection are marked in *white*, mixture of white lead with the dissolved shellac.

The list of museum accessions herewith reported includes only those marked in *red*. All others are listed in connection with the respective field reports.



## II.

## REPORT OF N. H. WINCHELL.

*The crystalline rocks of Minnesota. General report of progress made in the study of their field relations. Statement of problems yet to be solved.*

## CONTENTS.

*Introduction.*

1. Work done by the Minnesota survey on the crystalline rocks.
  - (a) Early views. State of knowledge when this investigation was begun.
  - (b) The problems then unsolved.
  - (c) List of publications issued since the Minnesota survey began.
  - (d) The various annual reports.
    - The first annual report, 1872.
    - The second annual report, 1873.
    - The sixth annual report, 1877.
    - The seventh annual report, 1878.
    - The eighth annual report, 1879.
    - The ninth annual report, 1880.
    - The tenth annual report, 1881.
    - The eleventh annual report, 1882.
    - The thirteenth annual report, 1884.
    - The fifteenth annual report, 1886.
    - The sixteenth annual report, 1887.
    - Bulletin No. 2, M. E. Wadsworth, 1886.
2. The various steps of progress.
3. The results of the investigation so far as they appear at present.
4. Comparison of these results with those reached elsewhere.
  - (a) Agreements.
  - (b) Disagreements.
5. Problems still unsolved.

INTRODUCTION. In the course of any investigation that is extended over a number of years, like that of the work of the survey on the crystalline rocks of the state, it is necessary, for an intelligent application of effort, to review the progress made and ascertain as nearly as possible the amount and kind of work that remains. It is one of the characteristics of geological investigation, and particularly of research among the crystalline rocks, that as difficulties disappear, under the reflective scrutiny of the laborer, new problems are presented for solution. In the solution of these more advanced problems the geologist sometimes forgets, in the eagerness of his pursuit, that it is incumbent on him, in the interests of his own work, as well as for the information of others, to render an account of his progress and of his



success in surmounting the difficulties that confronted him at the outset. There are but few investigators, in any branch of science, that have not made mistakes. They may have advanced under illusive guides along devious lines, they may have retreated where they ought to have advanced, or advanced where they should have retreated. They have entertained partial or wrong opinions; but it is evident that no one should be held to these errors that are incident to the process. The final statement only ought to stand for the result of the investigation. This may contravene, or it may modify or totally disprove some of the early views. There is hence a justifiable reluctance on the part of an investigator to publish his results till he is satisfied that he is right, and that the work is finished. In the case of the Minnesota survey, however, like all surveys, it ought to be "finished." That is, its work should be rounded out with a so-called completion; for it is evident that however far the work should be continued there would still remain unsettled questions. It is not within the power of one survey, nor of one generation, to exhaust the possible research that might be applied to the examination of the geology of the crystalline rocks.

For these reasons it is thought best to take an inventory of the survey's work and results in the examination of the crystalline rocks of the state. This will be preliminary only, and the apparent truth, as it may be expressed in this report, may appear different in the light of future discoveries, and the final report on this work may be somewhat different from that which is here foreshadowed.

#### 1. WORK DONE BY THE MINNESOTA SURVEY ON THE CRYSTALLINE ROCKS.

The efforts of the survey have been directed, almost wholly, to the field relations of the terranes. It is evident that all laboratory determinations are subordinate, in their bearing on the general geology, to the labor expended in the field. That which is of first importance is a knowledge of the facts as to superposition, transition, and extent of the various kinds of rocks as they exist, in fact. No fine mineralogical disquisitions, or chemical determinations, or stratigraphical suppositions, or historical reviews of past speculations, can bear the weight of a feather in the balance against the facts of field observation. Dr. M. E. Wadsworth has truly said\* that the field evidence must in all cases

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\* Notes on the geology of the iron and copper districts of Lake Superior, p. 74.

be the arbiter and guide to the conclusions of the microscopist in his laboratory work on crystalline rocks, as to their eruptive or sedimentary nature. This supposes that the facts as reported are the actual facts. It is true, however, that from different standpoints the same facts may be reported differently by different observers, or because of a lack of capacity or training in field observation on the part of one or the other.\* So far as the work of the survey is concerned, while it would be obviously absurd to assert that no mistakes of field observation have been made, and no incorrect inferences have been arrived at by the field observers, it is no more than the facts of the case will justify to say that the Minnesota survey has devoted more time and accumulated more exact knowledge regarding the field-relations of the crystalline rocks than has any other state survey; and probably has given more time to field work in the crystalline rocks of the Northwest than the United States geological survey. In some instances extensive routes of observation have been gone over more than once for correction or verification. These field observations have been reported in whole or in part, from time to time chronologically in the reports of progress, but their fragmentary parts have not been grouped and presented systematically so as to show the results as they appear in the mind of the writer.

(a) *Early views. State of knowledge when this investigation was begun.*

When the Minnesota survey was begun, in the fall of 1872, there had been but little done on the crystalline rocks of the Northwest. In addition to the desultory and often fragmentary work of the Canadian survey, which should be classed rather as exploration and sketch-mapping, and which had been spread over the Canadian shores of lake Superior as far as to Pigeon river by Mr. Robert Bell, the only published information respecting the older terranes in Minnesota was in the reports of Keating, Allen and Schoolcraft, Shumard, Norwood, Whittlesey and Hall, with some brief notes by Bigsby, on the Lake of the Woods. Douglas Houghton had also visited Grand Portage and some points further west. Eames & Hanchett had also rendered short reports on some features of the northern part of the state.† There had been published also, in 1871, in the *Zeitschrift d. Deutschen*

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\* Compare Irving's and Wadsworth's different observations on the "Eastern Sandstone," *Copper-bearing rocks of lake Superior*, Monograph No. 5, U. S. Geol. Survey, p. 356, et seq.

† See Vol. I. final report, for some account of these early publications.

*geologischen Gesellschaft*, a paper by Dr. J. Kloos giving some notes on Minnesota, in which important new observations were recorded. It was two or three years later, however, that this last paper was first known to the writer.\* Prof. A. Winchell and Prof. R. D. Irving had also made some observations on the geology of the Northwest, particularly in Michigan and Wisconsin. The report of Foster and Whitney on the copper and iron districts of the lake Superior region makes no mention of the geology of Minnesota further than the reported occurrence of one or two minerals on the north shore of lake Superior.

So far as any of this work touches the geology of Minnesota, in the areas of the crystalline rocks, it may be divided into two classes.

1. That which is descriptive of the geographic extent of the crystalline rocks.

2. That which by careful mineralogical determinations discriminates the rock species from each other, or classifies the formations stratigraphically.

In the former may be placed the reports of Keating, Allen, Schoolcraft, Shumard, Eames, Hanchett and Houghton; in the latter are the reports of Norwood, Whittlesey, Hall and Kloos. Norwood's report partakes largely in the character of the first group. Whittlesey's was the result of observations made in company with Norwood, and embraces about the same facts and conclusions. Prof. James Hall's report of a trip from St. Paul to lake Shetek† in 1866, embraces the first reference of any of the crystalline rocks of the state to their supposed stratigraphic equivalents in the eastern states and Canada. He distinctly refers the gneisses at Redwood Falls to the *Laurentian*, and the quartzites at New Ulm and Pipestone to the *Huronian*, names which had been adopted by the Canadian geologists, though with some ambiguity and overlapping of description, the former in 1854, § and the latter in 1857, § §

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\* See translation of this in the tenth annual report.

† 1866, Trans. Am. Phil. Soc., Philadelphia, p. 329.

§ Geol. Report Can. Survey, 1857, p. 7. The name was used in "Sketch of the Geology of Canada," printed in French in Paris, 1855. This is embraced in "Canada at the Universal Exposition of 1855," by J. C. Tache, a report printed at Toronto, "by order of the Legislative Assembly," 1856. It was first announced in the report of the survey for 1852-53, which, however, was not published till 1854, at Quebec.

§ § In Mr. Murray's reports for 1853, 1854, 1855 and 1856 the terms "Huronian system" and "Laurentian system" are used incidentally, and as headings to chapters; but as these were not offered for publication by Mr. Logan till March, 1857, they cannot be considered as official announcements of those names till the date of their actual publication.



Just prior to the adoption of these terms, expressive of a distributive chronological classification of the terranes of the crystalline rocks, at least all those lying below the Potsdam sandstone, Messrs. Foster and Whitney\* had employed the term *Azoic*, after Murchison and Verneuil,† and had divided them mineralogically rather than chronologically, into gneiss, mica and hornblende slate, chlorite, talcose and argillaceous slate, quartz and marble.‡ They considered them an indivisible complex series, whose foldings and metamorphic changes rendered a determination of their original stratigraphic order impossible. This term, with its significance as interpreted by Foster and Whitney, was adopted by Dana in the first and second editions of his *Manual of Geology* (1862 and 1864), and by the Vermont geologists in 1862 (*Geol. of Vermont*, Vol. I). It was not till 1874 when the third edition of this manual was issued (by some mistake also called "second" edition), that the terms used by the Canadian geologists were adopted in this work. They are continued in the fourth ("third") edition issued in 1879. Dr. Ebenezer Emmons evidently shared the views of Foster and Whitney. Aside from his opinion that the Huronian of Canada was only a synonym of his Taconic which he insisted was not "Primary," he divided the "primary" rocks into two groups,|| based on the varying theoretical agency of heat in their production and present condition, viz., *pyro-crystalline* and *pyro-plastic*. In the former, in the main, he embraced granite, gneiss, mica slate, talcose slate, hornblendic and hypersthene rocks, that is to say, speaking broadly, the acid eruptive rocks and their accompanying schists, and in the latter he included the most of the basic eruptives.§

When the Minnesota survey began [1872] the Wisconsin survey, lately completed by Chamberlin, had not yet been instituted, §§ and the Michigan survey, revived in 1869, did not present its first final volume for publication till May 1, 1873. The writer, having been at work in 1870 on the Michigan survey, was, how-

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\* *Proc. A. A. A. S.* 1851, p. 4.

† *The Geology of Russia in Europe*, Vol. I, p. 10.

‡ Report on the Geology of the lake Superior land district; part II. p. 2. *Am. Jour. Sci.*, (2) xxiii. 305.

|| *Manual of Geology*, Second edition, 1860, p. 52.

§ Emmons also regarded some limestones as *pyro-crystalline*, and he embraces it in both series of that class of rocks. *Op. cit.* p. 60 et 66.

§§ The law ordering the Wisconsin survey was approved March 18, 1873.

ever, acquainted with the views of the director, Prof. A. Winchell, and of major T. B. Brooks, the geologist of the iron regions, touching the equivalency of the Marquette iron formation to the Huronian of Canada, as subsequently announced in Volume I of that report.

The first volume of the New Hampshire report by Prof. C. H. Hitchcock was issued in 1874, and that devoted to the stratigraphic geology of the Archæan in that state in 1877.

(b) *The problems, therefore, that were then unsolved, touching the stratigraphy of the Azoic or Archæan, were as follows:*

1. Could the Azoic be divided stratigraphically with any probable general applicability?

2. Could the terms Huronian and Laurentian, as employed by the Canadian geologists, find any equivalents in the crystalline rocks of Minnesota?

3. What relation did the Huronian bear to the Cambrian?

4. What relation did the Huronian bear to the Taconic?

5. What relation did the Cambrian bear to the Taconic?

6. What relation did the Animikie bear to the Taconic, the Cambrian and the Huronian?

Correlatively with these problems appeared others, although they did not present themselves so forcibly till some time later, viz.:

7. Could the rocks classed as Laurentian be distinctly shown to be of older date than the Huronian? All of them, or a part of them?

8. Could the Laurentian be subdivided?

9. Is the Laurentian derived from originally sedimentary rock? or from primarily eruptive rock?

10. If originally sedimentary, or if primarily eruptive, why is it mainly an "acid" rock?

(c) *Publications issued since the work began.*

In an appendix is a list of publications that have been issued since 1872, bearing on the geology of the crystalline rock, of the Northwest, so far as the writer has learned of them. It is probably not complete, but certainly embraces everything that has contributed to the subject any important information. To all of these the writer must acknowledge great indebtedness, and to none greater than to the geologists of Michigan and Wisconsin, Maj. T. B. Brooks, Dr. A. Winchell, Prof. R. Pumpelly, Dr. C.



Rominger, Prof. C. E. Wright, A. R. Marvine, Prof. R. D. Irving, Prof. (now President) T. C. Chamberlin, E. T. Sweet, and to Prof. M. E. Wadsworth, now state geologist of Michigan.

(d) *The various annual reports: progress from year to year.*

That there has been some advance in the science of the crystalline rocks in America at large as well as in those of the Northwest, and of Minnesota specifically, since 1872, is evident from a comparison of the problems unsolved in 1872 with those that are presented to the geologist in 1889; and while this advance is mainly due, of course, to the labor of the authors whose works are listed above, some of the steps of this progress may be accredited to the Minnesota survey. Some of these steps, due to a large extent, or wholly, to the Minnesota survey, it will be appropriate here to enumerate. There may be still a difference of opinion among the geologists of the United States and Canada as to what constitutes a step of progress, and as to who should be regarded as its author. But it is the design of the writer to mention only those steps which appear to his judgment to be actual advances, whether they appear so to others or not, and in that he holds no one responsible but himself. As to the responsibility and the credit for these steps, that is decided, as in all similar cases in science, by the dates of the published literature that announces them. The record, therefore, which will here be given, will be that of the progress, mainly, of the writer's own mind and apprehension of what he considers successive advances.

*The first annual report, 1872.*

The first annual report was made before any time had been allowed for examination of the crystalline rocks of the state by the present survey. Therefore the only design was to express concisely the state of knowledge that then was available, so far as it bore on any classification that might be accepted. The views of Foster and Whitney as expressed in 1851,\* grouping the crystalline rocks in the same manner as Murchison and Verneuil, all in one system under the name Azoic,\*\* were cited and their table of stratification was quoted. At the same time the subdivision into Laurentian and Huronian, introduced by Logan and Hunt

\*Report on the Geology of the lake Superior land district. Part II, p. 8. Proc. A. A. A. S. 1851, p. 4

\*\* Geology of Russia, Vol. I, p. 10. \*

of the Canadian survey, though contested by Prof. Whitney, was generally prevalent, and these terms were included in the brief description then published of their extension into Minnesota.

The most important question, however, which was considered in the first report, bearing on the classification of the Laurentian and Huronian, was that pertaining to the *Potsdam sandstone*. The bearing of this discussion, however, upon that classification was not fully apprehended, as its application and significance have been brought to light in some of the later years of the survey. Drs. Owen and Norwood, as well as A. Winchell \* considered the red sandstones and quartzites of Wisconsin and Minnesota as the conformable downward extension of the light-colored sandstones of the St. Croix and Mississippi valleys which they parallelized with the Potsdam of New York. It was just before the commencement of the Minnesota survey (Feb., 1872, *Am. Jour. Sci.*, p. 93), that Prof. R. D. Irving demonstrated conclusively that at Baraboo, Wisconsin, there was a marked unconformity between the red and the light-colored sandstones, and that they could not belong to the same system. Prof. Irving coincided with Prof. James Hall,\*\* who had previously regarded the light-colored upper sandstones as Potsdam and had been followed by nearly all geologists of America, in referring the lower quartzites to the Huronian of Canada.

The first report of the Minnesota survey refers the lower quartzites to the Potsdam horizon of New York and gives the name *St. Croix* to the overlying light-colored sandstones. In the light of all subsequent examinations, both east and west, there has appeared nothing that has disproved the correctness of this reference, but on the other hand every fact, whether of paleontology or of stratigraphy, which has been brought out since 1872, relating to this horizon, has been in accord with it. It must not, however, be considered as sufficiently demonstrated, so long as there are competent dissentients who still restrict the name Potsdam to the later sandstones. It will appear later in what way this bears on the classification of the rocks styled Azoic by Messrs. Foster and Whitney and later Archæan by Prof. J. D. Dana.

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\* Owen's report on Wis., Iowa and Minn., pp. 48, 187, and Table, p. 634. *Am. Jour. Sci.* (II) xxxxi. 226, 1864.

\*\* Report of progress to the Governor of Wisconsin, 1860; also Notes upon the geology of some portions of Minnesota from St. Paul to the western part of the state, *Trans. Am. Phil. Soc.* Philadelphia, June, 1866.

*The second annual report, 1873.*

In the second report was an account of the geology of the Minnesota valley. While this entered into a somewhat detailed description of the field appearances of numerous outcrops of the crystalline rocks between New Ulm and Big Stone lake, there was no attempt made to classify them, or to refer them to any horizon of rocks exposed in the northern part of the state. They were regarded as a southern extension from the granites in the northern part of the state, and were presumed to have their parallelisms there if they could be referred to their proper places. The red quartzite at (or near) New Ulm is again referred to the age of the Potsdam.

*The sixth annual report, 1877.*

The report contains the first recorded observations made by the Minnesota survey on the crystalline rocks of the northeastern part of the state. They were made at Northern Pacific Junction and about Little Falls, on the Mississippi river. An examination was also made of the granitic rock in the vicinity of Motley. These notes are simply descriptive, without any effort at classification.

In this report is a description of the geology of Rock and Pipestone counties, in which are large outcrops of the same red quartzite as seen at New Ulm, and at Baraboo, Wisconsin. It is classed as Potsdam.

*The seventh annual report, 1878.*

In the seventh report is a sketch of a somewhat extended systematic examination of the mining geology of the northeastern part of the state. The coast of lake Superior was examined from Duluth to Pigeon point, a trip was made overland from Grand Portage along the international boundary to Basswood (or Basimenan) lake, thence to Vermilion lake, the St. Louis river, across to the Mississippi and down that river to Little Falls. Some examination was also made of the country between Pigeon point and the Brule river by ascending some of the valleys from the shore of lake Superior. Among the geological results of the season's field work, as stated in the report, on p. 10, are the following points which may be classed as advances in classification of the crystalline rocks of the state.

1. The syenites, granites and other rocks that had been named

Laurentian by the Canadian geologists graduate conformably into the schists and slates that had been named Huronian by the same—as designated and defined by Mr. Robert Bell. This is also stated by Mr. Bell in his report for the Canadian geological survey, 1873.\* This definition, however, of the Huronian formation, as will appear later in this summary, was incorrect, and the correction was made by Mr. A. C. Lawson who named the schists *Keewatin series*.

2. The gray quartzite formation, No. 4 of the seventh report, is the iron-ore formation of the Mesabi range and graduates conformably into siliceous iron-charged rock, “which in some places furnishes a valuable iron ore in large quantities.”

3. The Cupriferous formations, later known as the Kewenian, or Keweenaw, lies unconformably over several formations, and is interstratified with the beds of the latest.

The evidences of these conclusions are not given in this report. The detailed observations have not yet been published, but a synopsis of them was published in connection with a preliminary description of rock samples collected, in the ninth annual report.

*The eighth annual report, 1879.*

So far as the eighth report records the work of 1879 on the crystalline rocks, it embraces the descriptive account of the outcrops in the Minnesota valley by Mr. Warren Upham, and some mineralogical notes on the eruptive ranges of the lake Superior region by Prof. C. W. Hall. The observations of the writer in the northwestern part of the state, in 1879, have never been published in full, but a synopsis of them was published in connection with a preliminary description of rock samples collected, in the tenth annual report.

In a preliminary chapter are some mineralogical notes on the “Cupriferous series at Duluth” (p. 22). In this a distinction is drawn between the labradorite rock, or “gabbro,” and the red orthoclastic syenite which is mingled irregularly with it, the latter being regarded as the result of local fusion of some of the sedimentary strata, probably some of the strata of the Cupriferous series. The whole trap and Cupriferous series of lake Superior is here assigned to the age of the Potsdam sandstone.

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\*Report of progress, 1872-3, p. 106.



*The Ninth annual report, 1880.*

This report gives a preliminary description of 442 rock samples collected in the region of the crystalline rocks northwest from lake Superior, in 1878, with a running brief commentary on their field relations. It contains but little attempt at classification of the stratigraphy. A distinction of unconformity is made on p. 82 between the gray slates and quartzites of the south side of Gunflint lake and the hydromicaceous rocks of the north side, the two being separated by a conglomerate-breccia, and the more northern rocks being regarded as the equivalent of what the Canadian geologists had styled Huronian. This conception of the Canadian Huronian was derived from Dr. Hunt's having described the Huronian as in the main a mass of greenstones, and Dr. Bell's report on the region westward from Thunder bay in 1872. Observations are recorded on p. 94 indicating a conformable passage from what was then regarded as Huronian to the lower syenites, or Laurentian.

*The tenth annual report, 1881.*

The preliminary description of rock-samples is continued in this report, embracing those collected in 1879, and extending the list to No. 836 inclusive. There is also a renewed discussion of the Potsdam sandstone and its western equivalents, and a short description of some typical thin sections of the rocks of the Cupriferous, or Kewenawan, in Minnesota.

This report embraces some attempt at partial classification, stratigraphically, of the crystalline rocks.\* The strata that comprise the island at Grand Portage bay are described in detail, with references to the rock-samples illustrating them. This is followed by a "Generalized section of the alternating beds of the formation," and of the Animikie (Taconic) and lower terranes to the granites and syenites of the region north of Gunflint lake. It is as follows:

*Generalized section at Grand Portage and northwestward to Gunflint lake.*

1. The Palisade rock, or the "red rock."
2. Green shales, etc., in the bay east of Red point (Nos. 232, 235 and 239).
3. Layer of trap, like 540 (542) seen..... 14 feet.
4. Chalcedonic amygdaloid (543) seen..... 20 feet.

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\*See pp. 47, 49, 87, 94, 112, 123-136.



5. Fibrous green trap striking E. and W. through the island and forming its highest parts. In spots it is globuliferous with hard, dark, strong, shot-like pellets about  $\frac{1}{4}$  inch in diameter, (Nos. 544 and 545)..... 35 feet.
6. Even-grained sandrock (546) seen..... 8 feet.
7. Trap bed, finely and irregularly jointed, with nodules of white saccharoidal calcite (547) seen..... 36 feet.
8. Quartzite (548) seen..... 5 feet.
9. Conglomerate (549) seen..... 16 feet.
10. The rock No. 540, forming the great trap covering of the quartzite hills at Grand Portage; seen 50 ft.; estimated ..... 250 feet.
11. The slate and quartzite terranes seen in the hills at Grand Portage, generally, and along the international boundary as far west as the west end of Gunflint lake, estimated..... 400 feet.
12. Jasper and iron-ore beds of the Mesabi, and southeast of Vermilion lake.
13. The micaceous and chloritic schists and slates of Vermilion lake and the dalles of the St. Louis river.
14. The mica schists, granites and syenites of the region north of Gunflint lake.

This takes no account of the great labradorite range, which in some places forms the Mesabi, nor of the iron-ore deposits of Mayhew lake, because these are apparently included in the rock Nos. 258 and 540, or in an immense outflow of molten matter at a date somewhat earlier (V. No. 695 and 816). Nor does it mention the conglomerate at Ogishke Muncie lake, because that is apparently an incident of the slaty and talcose beds included in sub-No. 13; nor the red granite of the region of Brulé Mt., because they are probably a modified condition of the Palisade rock.

Respecting the parallels of the quartzite strata composing a part of Isle Royal, so far as found in Minnesota, the following statement is found on page 49.

Its dip, color and bedding recall the red quartzite in S. W. Minnesota, but it is rather less siliceous than that. In the same manner, however, it overlies a coarse pebbly conglomerate, which in the same way indicates its relation to the red quartzite of Grand Portage island and of Pigeon Point peninsula (No. 290), as well as to the sandrock and shales of Fond du Lac.

Not at that time having realized the fact of the existence of two hematite iron-ore horizons, in two separate and unconformable formations, there are some intimations of the confusion of stratigraphic interpretations which the writer discovered when the effort at general classification was undertaken. Thus, on page 94,—

The "Gunflint beds" (i.e., the jasperoid beds) south of Gunflint lake (see after No. 747) have been associated with the slates and quartzites of the overlying

formation (i. e., the Animike) rather than with the talcose, slaty beds underlying (see 426), but observations about Town Line and Ogishke Muncie lakes seem to indicate that they are here a part of a schistose, slaty formation, highly inclined, which belongs to the Huronian (i. e., as the Huronian had been described in the region) passing into the great conglomerate of Ogishke Muncie lake."

At the same time the conglomerate about Ogishke Muncie lake was regarded as a single formation, and, while in all descriptions and sections that had been given, it had, as a totality, been grouped as a part of a terrane separate from the Animike, yet there were stated to be some considerations that seem to require it to be considered a part of the Animike (p. 95); and that the horizontal slates (the Animike) as a whole may also pass into the tilted slates as a whole. It will only be necessary to state that this latter idea was one of the errors that are inseparable from the progress of any such investigation. It was recorded at the time as expressive of the stage of interpretation of the facts that had then been reached. Yet it was not wholly erroneous. The facts appealed to, conflicting as they appeared then, are facts still, and they go with numerous other observations to force the abandonment of the idea that the Animike is convertible into the "talcose" or sericitic slates and schists of the region further west, although they do become highly tilted. The former idea, however, when separated from the latter, and supplemented by further statement in harmony with a wider field of observation, has stood the test of all the study and observation that have been devoted to this point, and may be considered as a step of progress, *viz.*, The formation of horizontal slates of the vicinity of Gunflint lake and the international boundary is the same as the highly tilted slate and quartzite formation that passes into the slaty conglomerate of the region of Ogishke Muncie lake.\*

In regard to the epoch of the great outflow of the labradorite rock, the "gabbro," some general statements are given on pages 112 and 113, based on observations at Beaver Bay, which show that this rock preceded the advent of the bulk of the eruptive traps of the Cupriferous. The conclusions are in these words:

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\* Prof. Irving and the Wisconsin and Michigan geologists, as well as all the Canadian geologists except Dr. A. C. Lawson, so far as known, regard these horizontal slates when broken and tilted and the tilted schists as both included in the Huronian; and Prof. Irving has referred to this hypothetical conversion of one to the other in support of that view. (Copper-bearing rocks of lake Superior, Mon. V., U. S. Geol. Sur., p. 443.)

(1) The Great Palisades are of a rock, the equivalent, geologically, of the slaty quartzite (Nos. 127 and 528) at Beaver Bay, and below that point; and to the red syenite of the islands below Beaver Bay, and of the west bluff of Beaver bay; and to the red (often quartzless) rock associated with the gabbro at Duluth. These beds also constitute the red bluffs at Tischer's near Duluth, and New London, as well as the red rocks at Baptism river and the East Palisades.

\*       \*       \*       \*       \*       \*       \*       \*       \*

(2) The feldspar masses are of the same rock (geologically) as the Rice Point gabbro, and both are the result of copious, and perhaps one of the earliest, igneous outflows of the Cupriferous. \* \* \* The late outflows derived fragments from the "clinker fields" and from the knobs of feldspar already formed, as they passed along; and when these had been covered by later sedimentation such sedimentary beds were also involved in the later upheavals and fusions.

The "slaty quartzite" here mentioned as the probable equivalent of the Palisade rock, is a firm, purplish felsyte containing some angular quartz grains.

In the discussion of the question—what are the western equivalents of the Potsdam sandstone—the tenth annual report records some departures from the conclusions of the Wisconsin geologists, and reverts to the opinions expressed in the first annual report, to the effect that the Potsdam sandstone of New York is not found at all in the bluffs of the Mississippi river, but that it is more likely to be represented by the red sandstone and shales that constitute, with the associated eruptive rocks and conglomerates, the Cupriferous or Kewenawan formation of lake Superior. It maintains that the Taconic system was established correctly by Dr. Emmons, and that it is repeated in the Animike of Thunder bay, as well as in the Georgia group of Vermont. This last is an important step of progress, in the opinion of the writer, and one that no later discoveries have tended to invalidate. This conclusion was reached by a comparison of the described stratigraphy and the paleontology of the formations involved in the east, with those of the west. The Potsdam sandstone, or quartzite, in both places lies probably unconformably over the Taconic.

*The eleventh annual report, 1882,*

While containing some matter relating to the mineralogy and lithology of the state, also embraces a table of the systematic geology of the crystalline rocks. This represents the "Huronian" as extending from the Potsdam formation through the

Taconic, also embracing the formation since named Keewatin by Dr. A. C. Lawson, and the mica schists since named (in the report for 1886) Vermilion group\* by this survey. The black slates and the quartzites of the Animike and the Ogishke Conglomerate are made the equivalent of some of the Taconic. This includes also the iron-bearing rocks of the Mesabi range and Vermilion lake, the "Gunflint" beds and the slates and quartzites at Thomson. The magnesian sericitic schists of the region of Vermilion lake and north of Gunflint lake, while placed below the Taconic and above the mica schists (which are styled "Montalban?") are doubtfully supposed to represent the true Huronian.

Prof. A. H. Chester, in this report, parallelizes the iron districts of Minnesota, i. e., the Mesabi and the Vermilion ranges, both with the "Huronian," and specially dwells on the resemblance of the Mesabi iron-bearing rocks to those of the Penokee range in Wisconsin. He also calls special attention to the close geological similarity between the Vermilion iron deposits and those of Marquette.

*The thirteenth annual report, 1883.*

In this report is found the first statement that indicates the necessity of separating the Vermilion ore horizon from the Mesabi ore horizon. See pp. 24, 37. It is here assigned to the formation of "Huronian conglomerates and greenstones" (see Fig. 5, p. 22), the same that in the eleventh report was described (p. 170) as "magnesian, greenish, soft schists, becoming syenitic and porphyritic; seen on the north side of Gunflint lake, along the international boundary at Basswood lake, and at Vermilion lake," the formation of graywackes and sericitic schists which has since been designated Keewatin, the same that in the ninth report was said to be unconformably under the Animike at Gunflint lake.

This report also describes primordial fossils from the red quartzite of southwestern Minnesota, the same that Prof. James Hall had classed as Huronian, and that had been also regarded Huronian by the Wisconsin geologists. These fossils are *Lin-gula calumet* and *Paradoxides barberi*, and the beds containing them are supposed to be represented in the lake Superior region by the red quartzite at the head of Wausaugoning bay and on

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\* About the same time the Vermilion group was named *Coutchiching* by Dr. Lawson. Am. Jour. Sci. (3) xxxiii., p. 478.



Pigeon point, which in the tenth report was supposed to be extended to Isle Royal.

*The fifteenth annual report, 1886.*

A large amount of field-work was done in 1886. It added much to the evidences of the correctness of the general parallelisms that had been gradually wrought out by the survey. It also introduced some new problems, and showed the necessity of instituting some subordinate divisions in the formations that had been spoken of in other reports. It also showed the necessity of abandoning some of the hypothetical parallelizations that had been entertained.

In respect to the gabbro formation, the Mesabi overflow, it was found to be indistinctly separable from another, and earlier, eruptive rock which constitutes a prime feature in the topography, and which occupies a wide belt of country running along north of the gabbro area, its line of direction being rudely parallel with the north limit of the gabbro. A general representation of the geographic areas of the various formations was attempted on a colored geological map of the northeastern part of the state. The gabbro was found to have extended so far north as to have covered from sight the line of strike of the Animike (p. 381) and to have come into contact with the older syenite (pp. 347-49). It was intimated that the Animike formation overlay one eruptive rock and underlay the other, and that it seemed to embrace the Ogishke Muncie conglomerate in its lower portion (p. 381). The entire eruptive rock was found to be in some places a remarkable agglomerate, and in various ways to become changed to greenish schists, chloritic and sericitic, and to embrace in its mass, generally in a manner of unconformity, the jaspilite and iron-ore of the Vermilion lake region. At the same time this green rock exhibited at times very manifestly some signs of aqueous stratification; at other times no such structure could be found in it, and it merged into a dense, homogeneous, massive doleryte. The graywackes which are in this greenstone formation, fade out by merging into its evidently eruptive condition, but in many places are purely sedimentary, having much quartz as rounded grains and pebbles, arranged in sedimentary layers.

The mica-schist belt which was shown to be stratigraphically below the graywacke-greenstone horizon was named *Vermilion* group, or series. It was said to merge into the gneisses below



sometimes conformably and at others to be united with them through a series of mutually intersecting dikes, the gneissic rock penetrating the schists, in their original condition probably of a basic eruptive, and the latter also cutting the contiguous gneissic masses. These rocks are both also cut by basic dikes of later origin (pp. 290-296).

The lowest rock seen was described as gneiss; but at the same time the gneissic structure was found to not always prevail. This lowest rock, which was accepted as Laurentian, is not only sometimes massive, but it is either granite or syenite, i. e. the dark mineral is sometimes mica and sometimes hornblende, or both at the same time.

The granites and syenites were not all put into the same stratigraphic horizon. The "fundamental gneiss," which manifestly lay below the mica-schist horizon, occupies a distinctly marked stratigraphic place. Such is that seen at the northwest end of Vermilion lake. Not to mention the red syenite which is intimately associated with the gabbro, and is certainly of the same date, in its present condition, as the gabbro, a further distinction was introduced by which the rock of the Giant's range, where the range consists of a narrow and abrupt ridge of granite rock, is separated from the age of the Laurentian, and is shown to be the result of local change in some bedded sediments probably later than the Laurentian — a change that, beginning with a partial crystallization of the beds *in situ* by which fine-grained, red-weathering syenite, not distinctly individualized as to its mineral constituents, was produced, and continued, under the action of the same dynamic forces, whatever they are, till a perfect fusion and subsequent extrusion and re-crystallization of the same matter were enacted. This was discussed and roughly illustrated on pp. 347 and 349. Some of the distinct observations are recorded on pp. 352 and 353. The cause of this fusion of the sedimentaries was supposed to be the great eruptive epoch of the gabbro; and this red syenite is made the parallel of the "red rock" of the earlier reports, the red quartz porphyry and the "palisade rock" of the lake Superior shore. The gabbro is not present, however, in all places where this fusion has resulted in extrusion of the acid molten rock, although it is nearly adjacent, or actually overlies the acid rock in many places. In the report this change in the ancient sediments is attributed to the contact of the molten gabbro on them, but there may be and probably are, many places where the extruded acid rock came from some

greater depth, though yet within the super-crust, and its fusion and extrusion may not be attributed to immediate effect of contacting gabbro, but must be supposed to be only a part of a widespread and deep-seated metamorphic action that affected the region and culminated in extruded molten rock only along those lines where the dynamic action was most intense. Such a line of intense activity seems to be marked by the location of the narrow ridge known as the Giant's range, at least south and south-westward from Birch lake.

*The sixteenth report, 1887.*

The results of systematic stratigraphy contained in the sixteenth report, while varying somewhat from those of the fifteenth, in the main are concordant therewith. They were drawn from a special reconnoissance of the region of the typical Huronian, north of lake Huron, and a comparison of the results of that reconnoissance with a re-examination of the so-called Huronian of the Marquette and Gogebic iron regions of Michigan, united with previous knowledge of the region of northeastern Minnesota. In some of these results my brother and myself are not quite in concord, but these differences appertain solely to the possible parallelisms of some Michigan and Wisconsin formations with some in northern Minnesota, and on making further field examinations and research into the comparative lithology they may disappear entirely. In the following summary only those systematic results that are in harmony with the writer's convictions are stated, with some foot-notes that call attention to interpretations that are entertained by my brother.

The name Huronian, if used at all, should be applied only to the strata that were first included under the term when it was introduced and defined, and to their stratigraphic equivalents in other parts of the country. The English geologists do not recognize the formation in the British Isles, but include the strata that are presumably included under this term by the Canadian geologists, in the term Lower Cambrian, which embraces the Primordial fauna. The definition of the Huronian which has been accepted is that of Logan, based mainly on the observations of Murray in the region north of lake Huron, republished in the "Geology of Canada," 1863.\* With this understanding the

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\*It is well known that the Canadian geologists have later extended the term widely beyond its typical region, and amplified its significance, so as to make it cover all the schists down to the gneisses of the Laurentian. Recently, however, Dr. A. C. Lawson has separated these schists from the proper Huronian, and has designated a part of them Keewatin. "Report on the geology of the lake of the Woods region." An. Rep. 1885, Can. Sur.

sixteenth report shows an effort to trace the original Huronian formation through Michigan and Wisconsin to Minnesota, and to ascertain the Minnesota equivalents of some of the minor divisions of the crystalline rocks older than the Huronian.

The Huronian, in its typical locality, embraces three principal members.

1. Red and white quartzite, granular and sometimes conglomeritic.

2. Slate and gray quartzite, sometimes conglomeritic, making a conglomeritic slate, or "slate conglomerate."

3. Very fine-grained gray or white quartzite.

These are fragmental, and show every character that is known to indicate sedimentary origin. The formation embraces no mica-hornblendic schists, no sericitic schists, no typical gray-wackes, no gneiss or gneissic rock. The beds dip with uniformity toward the south, are cut by doleritic intrusions and are overlain by the products of such eruption. They lie unconformably on a "gneiss" which is admitted to belong to the Laurentian, from which the formation received many and conspicuous boulders. The thickness of the formation may be as great as ten thousand feet. There is considerable evidence to show that the upper quartzite lies unconformably on the slates and slaty conglomerate, although there was no actual observation of such a relation. The formation also embraces red felsytes and some gray gabbro.

Broadly parallelized this is recognized at once as the Animike of Minnesota, embracing in that term the gabbro and "red rock" Mesabi, the Pewabic quartzite,\* the black slates and gray quartzites and the Ogishke conglomerate. At the same time the upper quartzite is provisionally parallelized with the true New York Potsdam sandstone quartzite.\*\* This quartzite with its Potsdam characters, including a primordial fauna, is found to exhibit characteristic outcrops in Barron county, Wisconsin, southern Minnesota, southeastern Dakota as well as in New York, and in Vermont where it early received the designation "granular quartz."

Subsequently this unconformable quartzite was traced through the Marquette iron region of Michigan, and its unconformity on the iron-bearing rocks was observed and figured at two points.

The iron-ore rocks of the region of Marquette are, in the 16th

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\* For a description of the Pewabic quartzite see p. 86, 16th report.

\*\* Compare "A great primordial quartzite." American Geologist, March, 1888.



report, made the parallel of those of Vermilion lake in Minnesota, and hence a part of the Keewatin which underlies unconformably the Huronian. The dioritic group and the gold-bearing serpentine group of Dr. C. Rominger are, together, made the equivalent of the sericitic series (i. e., the Keewatin) of Minnesota, embracing in that the schists that hold the jaspilyte at Tower, the conglomerate of Stuntz island, the Kawasachong rock, the green conglomerates at Ely, the lower portion of the great conglomerate at Ogishke Muncie lake,\* the dolomyte at Ogishke Muncie lake, and the "greenstone belt," in general, of the map accompanying the 15th report. This series of rocks is not found in the area of the original Huronian.

The iron-bearing rocks of the Penokee-Gogebic range of Michigan and Wisconsin, however, are not considered to be in the same formation as those at Vermilion lake. They are made to be the equivalent of the slates and iron-bearing rocks of the Animike of Minnesota, and hence of the true Huronian. The evidence of this need not be repeated at this place, although it is not expressed fully in the report here summarized. It will be given more fully in a later chapter in this report. †

An important point was reached, in the 16th report (pp. 97-98), in the separation of the Ogishke conglomerate from the greenstone agglomerate on which in some places it must lie unconformably. They seem to have both been affected by the gabbro epoch of disturbance, and the gabbro was found in different localities to lie on the gently inclined strata of one and the nearly vertical strata of the other.

Facts confirmatory of the origination of crystalline acid eruptive rock, both *in situ* and in form of overflow, from fragmental strata, as before reported in the 15th report, are given again on pp. 104-108 in the 16th. These fragmental strata seem to be some part of the Keewatin, and were originally conglomeritic.

Bearing on the question of the age of the gabbro-red-rock flood, which is taken by the Wisconsin geologists to be the base of the Kewenawan, or Cupriferous, of the lake Superior region, some facts were reported in the 16th report (pp. 85, 87, 88) which show that the gabbro began to be extruded during the deposition of the great quartzite which overlies the Animike, and that the great mass of the gabbro is of not much later date, i. e., of the age

\* My brother, however, regards the Keewatin schists as bearing no relation to the Serpentine group of Rominger. See p. 343.

† On the other hand my brother is disposed to regard the Gogebic ore-bearing rocks as having about the same horizon as those at Marquette, which he does not admit within the Huronian; (pp. 188 and 194). The Penokee rocks, however, he would make Huronian.

of the primordial quartzite of the Northwest which is considered to be of the age of the Potsdam of New York and the "Granular Quartz" of the Taconic.

## 2. THE VARIOUS STEPS OF PROGRESS.

If we revert now to the list of problems that were unsolved touching the crystalline rocks of the state in 1872, when this investigation began, we shall see that, by the aid of the geologists of Wisconsin and Michigan, great advance has been made in settling some of the questions then pending.

1. The uncertainty respecting the possibility of making a stratigraphical subdivision of the "Azoic" of Foster and Whitney, or the "Archæan" of J. D. Dana, exists no longer. There is a more or less extended subdivision, sometimes into only two parts but more frequently into three or more, which is accepted not only by the geologists of the Northwest but by geologists who are at work on this group of rocks throughout America and Europe. So far as Minnesota is concerned this subdivision can be carried still further, and six members of the "Azoic" (if the Huronian be included in it) can be described which maintain a constancy of character and stratigraphic position extending into Wisconsin, Michigan and Canada, such that they have to have individual description.

2. The terms Huronian and Laurentian were applied to two of these parts by the Canadian geologists. Though misunderstood, by reason of the contradictory and varied definitions that have been given these terms by geologists later than the descriptions of Murray and Logan, when they are compared with the typical regions in Canada they are found to have definite and easily recognizable application to stratigraphical horizons which are extended over the whole Northwest, if not over the world.

The Huronian formation is satisfactorily established as the equivalent of the Lower Cambrian of Sedgwick. This conclusion is not wrought out in any of the annual reports of the Minnesota survey. It is an inference, however, from two other facts which have been indicated in the foregoing synopsis of the Minnesota annual reports, and it has been urged elsewhere by the writer. These two facts when united constitute a demonstration as incontestable as any mathematical formula, viz.:

The Lower Cambrian is equal to the Taconic,

The Huronian is equal to the Taconic,

*ergo*

The Lower Cambrian is equal to the Huronian.



We shall not stop here to bring forward anew the evidences on which these premises are based, but will proceed to mention other advances that have been made since 1872 in a knowledge of the crystalline rocks of the Northwest.\*

4. The foregoing conclusion involves premises which themselves were doubtful in 1872, and which, in the opinion of the writer, are sufficiently established to be admitted as truths. The first is, that the Huronian of the Canadian geologists is the same formation which was named Taconic by Dr. Emmons of the New York geological survey. It makes no difference except in the greater difficulty involved in making this fact appear to the satisfaction of geologists, how long and how honestly the Huronian has been sustained by competent geologists, nor how long the Taconic has been as honestly ignored by the majority of opinion; if these names were actually applied to the same formation, the sooner it be acknowledged by American geologists and the proper adjustment be made in nomenclature, the better it will be for American geology and the credit of American geologists.

5. The other doubtful premise involved in the conclusion (3) above mentioned, can be considered doubtful no longer, viz.: The Lower Cambrian is the equivalent of the Taconic. There are some who bring trifling objections to the actuality of the Taconic at the horizon of the Lower Cambrian, but the evidence is so strong and is based on so large a mass of concurrent fact and testimony that it is practically demonstrated.

6. The Animike rocks having been shown, first by Prof. R. D. Irving, and subsequently by the Minnesota survey, to be the

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\* On the identity of the Lower Cambrian with the Taconic, see the writer's papers:

Notes on classification and nomenclature. *Amer. Naturalist*, August, 1887.

Some objections to the term Taconic considered. *Amer. Geologist*, March, 1888.

A great primordial quartzite. *Amer. Geologist*, March, 1888.

Report of the American sub-committee on the Lower Paleozoic, to the London International Congress of Geologists. *Amer. Geologist*, September, 1888; also the report of the Congress.

The same view has long been held by Jules Marcou, J. Barrande, and by Dr. E. Emmons, and by other geologists later. Compare S. A. Miller. The Taconic system as established by Emmons and the laws of nomenclature applicable to it. *Amer. Geologist*, April, 1888. Also A. Winchell. The Taconic question. *Amer. Geologist*, June, 1888. C. D. Walcott. *Bulletin No. 30, U. S. Geol. Survey*, and *Amer. Jour. Sci.*, March, April and May, 1888. Mr. Marcou's principal papers are: The Taconic system, and its position in stratigraphic geology. *Proc. Am. Acad. Arts and Sci.*, Vol. XII, 1884. American geological classification and nomenclature, May, 1888.

On the identity of the Huronian with the Taconic; see, The crystalline rocks of the Northwest, N. H. Winchell, vice-presidential address, A. A. A. S., 1884. At a much earlier date the same view was held by E. Emmons, and by J. Marcou. It has also been stated by A. Winchell in the 16th report, p. 170.

equivalent of the original Huronian, it follows that they are also the equivalent of the Taconic and of the Lower Cambrian, and belong within the primordial zone of Barrande, although the distinctive fauna of the primordial has not yet been found in the typical Animike region.

7. The Laurentian rocks, of the Canadian geologists, are divisible into three parts, having different genesis and age. This fact has not been recognized, so far as the writer is aware, except by the Minnesota survey. These three classes of Laurentian (because they have all been so styled by the Canadian geologists) have been separately recognized by different geologists, both Canadian and American, and conflicting inferences have been drawn from them, which have tended to unsettle the whole foundation on which the Laurentian rests. Some have seen valid reasons for supposing the Laurentian older than the "Huronian" and conformable with it, and have given the details of the facts which show it. But others have seen another class of evidence, equally valid, that tends to make the "Laurentian" rocks of eruptive origin and more recent than the Huronian. And again some similar syenitic rocks have been described by the Minnesota survey\* mingled in great masses and areas with the Mesabi gabbro. These three classes have been observed and described in Minnesota, as rehearsed in the foregoing synopsis of the Minnesota work. It is believed that these distinctions are fundamental, and that they extend throughout the Northwest, and that when they are recognized generally by observers many of the apparent discrepancies that have been noted respecting the Laurentian will disappear.

8. The Laurentian, then, is easily divisible into three parts, but it would not be claimed, probably, by any one, that the same stratigraphic term should be applied to them, and the question may fairly be considered to which of them does it belong.

Besides the subdivision of the "Laurentian" into three parts, as above noted, a different separation has been recognized by some, viz.: into *gneiss* and *crystalline schists*, on the assumption that the original Laurentian contained such schists. This is a necessary and valid subdivision, from that point of view, and was adopted by Prof. R. D. Irving. It is also approved by my brother, A. Winchell, in the 16th report.

9. The "Laurentian" is therefore partly the result of change

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\*It seems very likely that this so-called Laurentian has also been described in Canada in the regions where the eruptive gabbro is found.

*in situ* from old sedimentary strata of Laurentian age, and partly the result of eruptive forces which have caused an extrusion and partial overflow over later sedimentary strata of some of the fused material of the same old strata. Such extrusion has taken place at least at two epochs, and the later one is of the age of the gabbro and may have not risen from so great a depth as the former.

10. For reasons which have been mentioned elsewhere\* it appears that by hydro-thermal fusion the deep-seated sediments of the super-crust became crystalline; also that the normal super-crust is necessarily acidic; also that any eruption from the fused portions of the super-crust would not only produce an acid eruptive rock when cooled, but that in the later history of the earth (Cretaceous and Tertiary) such acid extrusions could rarely if ever reach the surface of the earth, but would form laccolites amongst the strata overlying the zone of complete fluidity.

### 3. THE RESULTS OF THE INVESTIGATION SO FAR AS THEY APPEAR AT PRESENT.

If these steps of progress be applied specifically to the crystalline rocks of the state, we shall find some such history as the following delineated therein with greater or less distinctness.

#### *The Laurentian age.*

The name Laurentian is applied here essentially to the "fundamental gneiss." It does not go so far back as to include the first rigid primeval crust that formed from cooling nor so far subsequent to it as to embrace any noteworthy strata of basic minerals that might indicate a formation different in nature, or manner of genesis from the gneiss. In other words it does not include the "crystalline schists." The rock is essentially gneiss, either granitic or syenitic. It resulted from the fusion and recrystallization of the earliest sediments. It occupied a long period, and one that must have been marked by profound quiet, and by uniform conditions. The siliceous accumulations that were the product of oceanic waves and beaches, began in the shoal parts of the ocean and widened as the dry land increased in area, forming the nuclei of the continents. These sediments must have been siliceous, because such only would remain undissolved by the hot and finally alkaline waters of the ocean. When they

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\* Compare "Some thoughts on eruptive rocks with special reference to those of Minnesota." N. H. Winchell, A. A. A. S., 1888.



had accumulated to a great thickness they were buried under sediments of another kind, those of the "crystalline schists," marking the opening of another epoch in geological time. Wherever they had been raised above the level of the ocean they constituted the only land areas that existed, and perhaps till this day those areas, or some of them, have not again been submerged.

*Distribution of the Laurentian in Minnesota.* A large part of Minnesota is occupied by this fundamental gneiss. It is not to be supposed that all the area now occupied at the surface by this gneiss, was originally the land area of the state at the time of the close of the Laurentian age. The lapse of time has brought the earth through many vicissitudes. The original area of the Laurentian has been increased at the surface by the growth of the continent which has steadily expanded and risen higher above the ocean's level. As the later strata have successively been elevated to dry land they have been subjected to such destructive action, first of the ocean's beach-line, and afterward by the agency of the atmosphere, that they have been worn back and have uncovered the gneiss over extensive areas where it was at first hid.

In Minnesota this gneiss must have extended diagonally across the state from N. E. to S. W., crossing the Mississippi river and occupying the region of its headwaters about Itasca lake, and including the region of the upper waters of the Minnesota river. There may be spots, or considerable areas, within this original gneissic belt, where by subsequent deep-seated hydro-thermal fusion these primitive Laurentian sediments have been rendered plastic and then fluid, and have by pressure been extruded through fissures in the crust to the surface, or have been uncovered as laccolites by the destruction of the overlying strata; but wherever these exist they are presumed to show their later origin by their non-gneissic structure, or by their overlying some later sedimentary strata. The distinction, however, between the eruptive condition of the fused Laurentian sediments, and the primitive sediments that have been converted *in situ* into the fundamental gneiss is one that requires more study before it can be defined. That both conditions exist there is no question; that they can always be distinguished is not to be affirmed.

This Laurentian gneiss is represented by the Basswood lake and perhaps the Saganaga lake granites, and probably by the gneisses that are found in the Minnesota valley from near Morton

northwest to Big Stone lake. Northwestwardly from the Basswood area are others of similar gneiss, which have their extension northeast and southwest, nearly parallel with the extension of the other areas. Indeed the geographic distribution, no less than the geological facts that are observed in the field, favors the supposition that these alternating gneissic belts in the northwestern part of the state show either simply the denuded crests of stratigraphic anticlinals or of upward swells of the iso-hydrothermal fusion that has affected the ancient Laurentian sediments. This question is one that requires further investigation. It is referred to again under the head "Problems still unsolved."

*Eruptive Syenite.* Closely associated with these belts of fundamental gneiss are areas of massive eruptive syenite. It is a fortunate circumstance that the apex of one of the anticlinals of the gneiss runs near the present natural surface, and its manner of transition from sedimentary to crystalline rock can be observed. It would be more consistent with the tilted, even vertical, portion of the beds at the points where this transition has been observed, to suppose the change was due to the varying depths at which planes of equal hydro-thermal fusion ran below the surface at the time it took place, than to suppose it is due to an actual undulation in successive anticlinals of the same stratigraphic horizon. This favorable apex for observing the genesis of gneiss is in the line of the gneissic belt that runs southwestward from the west end of Gunflint lake, and which apparently is continued in the form of erupted syenite in the Giant's range southwestward from Birch lake. It was observed particularly on the Kawishiwi river (15th report, p. 353) and about the south shore of lake Kekekebic (15th report, p. 367; 16th report, p. 103-107). Whether that part of this gneissic belt which is referable directly to a change *in situ* in sedimentary materials be of the same age, i. e., on the same stratigraphic horizon within those sediments, as others that exist further northwest or not, they are here considered to belong to the Laurentian age in so far as they have not been entirely fused and extruded in a liquid state so as to form erupted rock.

It has already been remarked that the erupted massive form of the acid Laurentian is closely associated geographically with the gneissic. Whether they were of contemporaneous origin is not certain. But that the erupted condition was in some cases produced subsequent to the age of the "crystalline schists" is



evident from the fact that such rock replaces and cuts those schists. This fact has been recorded many times. One of the most remarkable replacements of the dark schists by the bodily transference of syenite is seen north of Gunflint lake, and is described and mapped by Mr. Grant in this (17th) report. That some other areas of syenite were of considerably later date, possibly so late as to have flowed over the Keewatin (greenish, or hydro-mica) schists is indicated by observations made by H. V. Winchell along the Giant's range southwest from Birch lake, and by myself on the shores of Kekekebic lake, where a conglomerate porphyroidal rock passes into gneiss, and directly overlies some Keewatin schists. That other of the erupted syenites of the state are as late as the gabbro, and hence overlie the Animike, is shown not only by the syenites associated in mutually inter-molten sheets with the eruptive gabbro that overlie the Animike, but also by the observations made at the Aurora mine in Michigan (16th report, pp. 58 and 187). This is indicated also by the observations and conclusions of Maj. T. B. Brooks and by Dr. C. Rominger in respect to the age of some of the granite rocks of Michigan.\*

*The age of the Vermilion schists, or "crystalline schists."*

It has been remarked† that the mineralogical difference between the gneisses and the dark "crystalline schists" is so great that it is allowable to attribute to the latter a different method of genesis, one sufficiently distinct to have introduced a different geological time or age. This fact was recognized in 1886, and the rocks that mark the opening and continuance of this new epoch of time were separated under the name "Vermilion group." A similar series of schists had been noted by Lawson in the region of the Lake of the Woods in 1885,‡ but, while separated by him into two parts, viz., "Schistose hornblende rocks," and "mica schists," had been by him embraced under the general term of "Keewatin series," and considered as the basal part of that series, and assigned to extra-Laurentian time. Subsequently Mr. Lawson identified the mica-schist group

\*T. B. Brooks, on the youngest Huronian rocks south of lake Superior. *Am. Jour. Sci.* (3), xi, 206.

Carl Rominger. *Geological Survey of Michigan*, Vol. IV, p. 22.

†A. Winchell.

‡Report on the geology of the Lake of the Woods region. Report C. C. of the Canadian survey, 1885, pp. 37, 54.

and the basal portions of it (the hornblendic schists and the eruptive features that characterize the horizon) in the region of Rainy lake, and has given a description and a name for the mica schists. (*Am. Jour. Sci.* June, 1887, p. 473). He includes the mica schists under the term *Coutchiching*, and supposes the changed eruptive rocks which intervene geographically between them and the belt of Laurentian gneiss lying next north (along the northern shores of the southern part of Rainy lake) to be of later date than the schists.

A similar group of mica and hornblendic schists had been noted in Michigan by Brooks and in Wisconsin by Irving and been placed in the Laurentian. Rominger included the same in his "granitic group" (*Geol. Mich.* Vol. IV, p. 17-18). Higher in the stratigraphic series, i. e., between the magnesian soft schists and the gneiss and gabbro of the post-Huronian rocks,\* another formation of mica schist was observed by them, which they placed near the summit of the "Huronian." They gave neither of these any special designation. In New Hampshire the "Montalban series" is one essentially of mica schists, but† whether it can be parallelized with either of the northwestern horizons of mica schist is a question which the future alone will be able to answer.

*Hornblende schists converted to mica schists.* To the writer, however, the micaceous and the hornblendic characters seem to be so blended, and the one so frequently substituted for the other, that the two parts described by Mr. Lawson appear to be only phases of the same set of rocks. The hornblendic condition, as schists, is without doubt the fundamental and primary one; and that one is found nearest the gneiss of the Laurentian. Hornblende is easily converted into biotite; biotite has so close relations with muscovite that it is sometimes twinned with it in the same crystal; muscovite is replaced both across the bedding and along the strike by hydro-mica or pearl-glimmer, and the last passes insensibly into the talcoid "Keewatin stuff"‡ of the Keewatin series. There is a conformable succession, both genetico-mineralogical and stratigraphical, from the hornblende schist through the mica schist into the hydro-mica schist, by which these are bound fundamentally into one group, as placed by

\* *Geology of Wisconsin*, Vol. III, 1873-79, pp. 93, 145, and table between pages 436 and 437.

† *Geology of New Hampshire*. C. H. Hitchcock, Vol. II, p. 112.

‡ A. Winchell. *Sixteenth report*, p. 343.

Lawson, and no other sort of transition is known or indicated. On the other hand, bearing in mind the strong mineralogical break, or contrast, between the gneiss and the hornblende rock, there is not so close a mineral relationship with the Laurentian. There is also, in some places, as profound a stratigraphic break and non-agreement. This is shown in numerous descriptions and illustrations not only of Mr. Lawson, but also by the 15th and 16th reports of the Minnesota survey. Mr. Lawson emphasizes this fact by a remarkable inference, viz., that the Laurentian is eruptive and of later date than the Keewatin schists. Not to dwell on this inference at this time it is sufficient to call attention to it to show the probability of a plane of profound discontinuity between the Laurentian, as here defined, and the Vermilion group.\*

*Nature of the transition from the Laurentian to the Vermilion.* As to the nature of the dynamic agent which introduced this change in the crystalline rocks at this horizon, it is indicated by the nature of the rocks themselves. Primarily they are characterized by the minerals that constitute a basic eruptive. They are found to exist at first as structureless knobs of diorite or dolerite. These lie nearest the gneiss (15th report, p. 330). They are flanked by basic rocks of various modifications, among which hornblende schist is predominant. Gradually, on receding from these black knobs, a sedimentary structure becomes apparent, and the hornblende is replaced partially or wholly by black mica. At last the rock is changed to a nicely stratified mica schist which at first is perhaps very dark-colored and firm, with little free silica, and subsequently, with an increase of silica, is striped with distinct strata of granular silica. As the dark mica still further fades out the mass is converted to a fine granulyte or quartzite, or a light-colored mica takes its place and the whole passes into sericitic schist or graywacke.

It is not always the case that all evidence of molten condition is wanting at this horizon of transition from the gneiss. But it is very slight at most of the sections which have been described.\* If, however, but a single unquestioned occurrence of eruptive conditions be found at this point it is sufficient to warrant the hypothetical introduction of a general eruptive epoch,

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\* Compare, A. Winchell; 15th Report, pp. 41, 43, 87, 97, 180; H. V. Winchell; 16th Report, pp. 407, 416, 417, 419, 455, 456; N. H. Winchell; 15th Report, pp. 291, 338, 349; 16th Report, pp. 76-77; M. E. Wadsworth; 15th Report, p. 331.

\* Compare, however, Lawson, Can. Rep. 1885. C. C. p. 41; Am. Jour. Sci. June, 1887, p. 477.



so widespread as to constitute a change from one system of rocks to another. No one can read the descriptions given by Mr. Lawson, or some of those contained in the 15th and 16th reports of the Minnesota survey, without recognizing not only one point but numerous points where eruptive characters are stamped at this horizon not only on the basic rocks of the Vermilion but also on those of the acidic "Laurentian." They mutually interpenetrate each other in the form of transverse dykes and mutually embrace isolated fragments separated each from the other. It seems to be abundantly demonstrated that some sort of dynamic change was introduced. The only inference that such a demonstration points to, in the light both of the contrasted lithology and the interrupted stratigraphy, is that of volcanic action.

Having now fairly stated the nature of the change which is presumed to set off the Vermilion rocks from the Laurentian, it is necessary to consider, further, whether the gradual and conformable conversion of the Laurentian beds into the Vermilion, such as has been seen at many places, and which indeed is the most frequent manner of transition,\* is consistent with the hypothesis of an epoch of eruption. It should be remembered that the beds do not now hold the position they had when they were deposited. They stand now nearly vertical. While this upturning facilitates the deciphering of their history, it has been accompanied by such changes in the crystalline condition of their elements that a screen that partially conceals their history has been thrown over them all; yet through this screen can be seen the outlines of their historic and dynamic genesis.

Admitting the actuality of a period of volcanic action at the opening of the Vermilion age, it is evident that the eruptions would take place only at centers of intensity of pressure. Once located, such vents would for longer or shorter periods continue to send forth the eruptive matter. In the presence of the almost world-covering ocean these materials would be at once distributed, dissolved, deposited, in the same manner as sediments at the present day, excepting only that probably the solvent power of the ocean's waters was greater than at the present time. The former sediments having been almost wholly of an acid nature,†

\* Mr. A. C. Lawson has described such in his report on the region of the Lake of the Woods, pp. 73, 76, 83. See also A. Winchell; 15th Report, pp. 97, 101, 178; 16th Report, pp. 264; H. V. Winchell; 16th Report, pp. 405, 415, *et passim*: N. H. Winchell; 15th Report, pp. 296, 298; 16th Report, pp. 69, 70, 76.

† That is, containing over 60 p. c. of silica.

such that when crystallized again they constitute the fundamental gneiss, they must have been accumulated slowly. But on the advent of this new supply of material, which is so rapid that it can not all be worked over by the ocean so as to be dissolved and its alkaline elements extracted, the erupted materials are thrown down in the condition of stratified sediments, retaining to a great extent their chemical composition. In the periods of comparative quiet these basic materials are interbedded with more siliceous materials, such alternations taking place as long as the supply of basic material is intermittent. Thus might be formed a great series of strata, surrounding the volcanic centre, thousands of feet in thickness, which would be made up of variously interstratified or mixed siliceous and basic sediments. Sometimes there would be intrusions of purely basic doleritic rock among these sediments, at different horizons, due to the bodily overflow of sheets of lava among the sediments,\* in a manner similar to the interbedding of trap rock in the Kewenawan at a later date. In other places these eruptions might take place somewhat later, involving in fracture, upheaval and mixing the last made strata in forms of various fragments and breccia in the molten rock that escaped.\*\* Such an epoch of disturbance, sufficient in its force to cause the outflow of basic rock from a deep source, would probably be sufficient to fuse and cause the outflow of some of the sedimentary rock that already had been formed. Thus the basic and acid rock would mutually interpenetrate, and a series of fractures which would be filled by the injection of any fused material that was adjacent, would be perpetuated to the remotest time in the form of transverse and more or less concordant dikes and by breccias composed of the two rocks.

It is manifest, therefore, that the supposition of the advent of a characteristically eruptive era, closing the quiet Laurentian sedimentary age, will account for both an unconformable and a conformable transition, such as are seen, from the Laurentian to the Vermilion.

*Effect of hydrothermal fusion.* It is necessary, before proceeding to the consideration of the next age, to call attention to another great fact in connection with the history of the Vermilion. Nothing is more evident to the geologist who carefully

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\* H. V. Winchell seems to have encountered such in that great extension of the Vermilion northwestward from Vermilion lake to Rainy lake. See, specially, 16th report, p. 425.

\*\* See the 15th report, p. 333, and p. 337.



inspects the Laurentian and Vermilion strata, than that they have had, in some respects, a common experience. This, however, is subsequent to the date of the origination of the rock masses, and has had a tendency to so unify their mineral characters as to blend them, in the opinion of some geologists, indissolubly into one system. They contain, excepting the eruptive diabases, etc., at the base of the Vermilion,—essentially the same mineral components; but those components are differently distributed and exist in very different proportions. These minerals are interlocked with each other in crystalline contact. It is very difficult to affirm, in many places, any fragmental grains. They lie in such continued parallelism in long sheets that there is no natural agent except sedimentation that can be appealed to to account for the stratification. The strata do not consist of individual minerals, that is, any single stratum may contain several minerals, but they change in relatively proportionate amounts in a direction across the strike, and this slow change, which on weathering brings out either light or dark bands, is so gradual that some of the strata or some parts of the strata, can not be separated from the others by any accepted designations. Within the same band the gneissose aggregation changes to a schistose. While in a general way it may be said that the mica schist alternates with what Mr. Lawson has conceived to be a series of thin gneissic dykes in as many sedimentary beds of mica schist, it is equally true, and equally as evident on inspection, that the schist fades out across the beds, into gneiss by a change in the relative amounts of the constituent minerals. It is very certain that if the schist, in such places, be attributable to sedimentary origin the gneiss is equally so.\* Indeed often within the gneiss itself are distinguishable narrow, parallel belts of varying color and lithology at some distance from the horizon at which the general gneiss mass began, which must be attributed, as certainly to the same cause as in the schist. These only lack the dark coloring minerals to show their nature more evidently, and their similarity of origin with those unquestioned parallel belts that mark the schist.

This crystallizing and unifying of the mineral characters must have taken place in these strata while they were yet buried at considerable depth below the surface, or at least at such a depth that they were affected simultaneously by hydro-thermal fusion.

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\* Compare H. Reusch, *Boemmeloen og Karmoen med omgivelser geologisk beskrevet* (English summary), p. 389, 1888.

Whether before, during, or subsequent to the process of upturning which has brought them both to a vertical attitude, it is not necessary here to inquire. Indeed, this is yet one of the "unsettled problems."

*The Keewatin schists.*

This term is here used in a sense somewhat restricted from that in which Mr. Lawson first applied it, inasmuch as it does not include the crystalline schists. This change, however, will doubtless be considered allowable, since Mr. Lawson himself seems to have separated the original group into two series by the application of a distinctive term to the mica schists—the Coutechiching.\*

*Conformable transition from the Vermilion.* It has already been stated that structurally there is a conformable transition from the Vermilion to the Keewatin. This has been found to be the case without exception, so far as the Minnesota survey is concerned, and it seems not to be contradicted by any facts reported by Mr. Lawson. Indeed, so far as Mr. Lawson has reported any facts,\*\* they tend to harmony with the facts and conclusions of this survey. Very favorable opportunities have been afforded for the minute inspection of these beds where they pass to the Vermilion, in many places, and they are reported in the fifteenth and sixteenth reports. There have been five different geologists, engaged within the last three years by the Minnesota survey, who have made independent examinations at this horizon of transition, and at separate places, and in every instance they have reported a gradual and conformable transition from the Vermilion to the Keewatin.

There is also a corresponding gradual change in the crystalline condition and the composition of the beds. While the materials are referable very largely to the same source as the materials of the Vermilion, there is an increase of quartz and a loss of mica in ascending in the strata. The schists become sericitic, or chloritic, or argillitic, and are interbedded with graywackes and agglomerates; the last prevail near the top and indeed seem to have introduced the marked eruptive characters that distinguish the next formation.

*Nature of the Keewatin rocks.* It appears, from the character of

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\* Am. Jour. Sci., June, 1887, p. 477.

\*\* Am. Jour., June, 1887, p. 477.

the rocks of the Keewatin, that active volcanic vents existed throughout the whole period, and that the ejectamenta were received in the waters of the surrounding sea. The strata contain much silica, in rounded grains and pebbles, indicating the waning of the volcanic supply and the influx of sedimentation similar to that accumulated during the Laurentian. There are dykes and various diabasic rocks associated with the Keewatin strata, some cutting transversely and some nearly, but not quite, parallel with the strike, some of which are certainly of a later date, but of which some seem to belong to the age of the Keewatin. Whether any of these have any possibly traceable connection with some of the old volcanic vents, existing within Keewatin time it is not now possible to state, but it is very likely that such connections will ultimately be established. At any rate the Keewatin closed by a renewal of active eruption as profound in its energy and its effect on the pre-existing strata as that which marked the close of the Laurentian. In the vicinity of Tower and thence eastward the rocks that evince this epoch of volcanic eruption have been insepcted at many places, and they are described with accompanying illustrations showing the crumpled and faulted condition of the earlier aqueous strata, in the fifteenth annual report (pp. 223-275). The rocks which resulted from this renewal of igneous forces form a conspicuous series and they have been traced almost continuously from Tower to the vicinity of Gunflint lake where they pass below the Animike. They show the same confused blending of stratified with massive rock as has been mentioned at the base of the Vermilion. In many places they constitute hills that rise one hundred to three hundred feet above the adjoining lowland levels, and consist of a greenstone that exhibits all the outward characters of diabase or doleryte. At many places this greenstone is agglomeritic, some of the stones showing, by a periphery of amygdaloidal structure, that they were immersed in a magma that differed from them in the amount of contained heat, or in their capacity for receiving and transmitting heat. The massive structure sometimes embraces large fragments rent from beds of stratified structure, and the massive structure itself sometimes acquires a faint lining and then a distinct banding which cannot be attributed to any other known agent than sedimentary action. The greenstone is frequently jointed in a columnar manner, forming basalt, in which cases it seems necessary to regard it as a primary basic eruptive. All the other modifications and exceptions which this



greenstone exhibits causing a departure from the characters of a normal basic eruptive are to be referred to the action of the ocean on the erupted materials, or on the local rupture of the pre-existing strata and the mingling of the fragments with the new materials. It is evident that in some places these fragments would be gently covered and inclosed by new sedimentation (and such instances are shown on the south shore of Vermilion lake) producing the curious alternations of breccias and parallel strata, all of the same kind of rock, which have excited the wonder of more than one geologist. It is equally evident that in other places these fragments would be covered by an overflow of erupted material that did not come into contact with the ocean's distributing action, and there would result a basalt containing angular masses of fragmental strata. It has been observed that apparently the most massive rocks of this epoch change by weathering into a green chlorite or even a sericitic schist, when they occupy the lower levels and come into contact with water, or where they are subjected to unsheltered exposure to alternating frosts and moisture. In this case the original rock shows, sometimes, a sedimentary banding, and the schistosity that results may or may not coincide with the direction of this banding. Throughout nearly all the region where this greenstone prevails, the schistosity has a prevalent direction northeastwardly, and that is also the direction of the general strike of all the sedimentary rocks; but there are exceptions in the case of the sedimentary strike, which are more numerous and extensive than any that have been found in the direction of the schistosity. The ease with which this schistose structure is developed on weathering, seems to vary with the composition of the rock, or at least with its original structure. Where the greenstone is evidently a true eruptive basalt which has never been subjected to the distributing action of sedimentation the schistose structure is faint, or is wanting, and rounded knobs of structureless massive rock rise above the general level of the country. When there is an intimation of the primeval action of water on the constituents of the rock at the time of their deposition, evinced either by the presence of siliceous grains, the inclosure of fragments of stratified masses, a generally lighter green color in the whole mass, or in an indistinct banding like sedimentary structure, the schistose structure is more quickly developed.

*Vermilion iron ores.* The Keewatin is the iron-bearing forma-

tion of the region of Vermilion lake. It contains the jaspilyte lodes which have been described at Tower in the 15th annual report. But it should be stated that these lodes seem to prevail in those parts of the formation that show most evidently the characters of massive and original eruptive rock, i. e., in the later portion. The knobs of jaspilyte at Tower are embraced in and penetrated by a green schist which at the surface is easily excavated, when a schist, but which at greater depth sometimes becomes a massive green rock, and which in the main must be considered an original eruptive. At short distances from the knobs, even on the slopes an evident sedimentary structure supervenes, the beds being nearly or quite vertical.

*Origin of Jaspilyte.* It is not necessary here to reconsider fully the question of the origin of the rock known as jaspilyte. Various considerations are given in the 15th report that go to show that it is of sedimentary origin, embraced as foreign masses in the green eruptive rock of the region. Much more study has since then been given to the subject, and while the facts and arguments then relied on are still valid some other problems have arisen which need to be solved in order to make the hypothesis of its sedimentary origin entirely satisfactory. They can be briefly referred to, viz.:

Why is the silica of the jaspilyte so uniformly of very fine grain, and of so uniform a grain?

Why does the jaspilyte accompany the most evidently eruptive parts of the Keewatin, and why is it not found in important masses in those parts that have plainly a sedimentary structure?

It seems quite remarkable that the jaspilyte, on the sedimentary hypothesis of its origin, should not vary perceptibly in the size of its siliceous grains. Reference is here made to the ultimate quartz grains into which it disintegrates on being long-weathered. When, in the stratified schists, some small pebbles from the jaspilyte are disseminated in the manner of sedimentation, the pebbles themselves, as constituent elements in the stratified mass, are seen to vary in size considerably, some of them being no larger than the eye of a needle, and others as large as pease, or even much larger. The same is true of pebbles of other silica, such, for instance as those of segregated or chemical silica which does not show the finely granular structure. But when these pebbles of jaspilyte are examined more closely they are found to be made up of almost microscopic quartz grains of the same size. The question refers to the size of these.



If they are the product of sedimentation, it would be in accordance with usual observation that they would have been collected and deposited under the action of varying currents and would vary in size from place to place, or from structure to structure (within certain limits) and some of them would be expected to be mingled with other sorts of sedimentary materials. Some observations have been made, indeed, which indicate the mingling of fine siliceous grains, supposed to be the same as the fine grains of the jaspilyte, with the sedimentary green schists in the vicinity of Tower,\* but in these cases, and especially in the case of principal masses of jaspilyte that are mined at Tower, it is not yet sufficiently shown that the ultimate grains of which the jaspilyte consists, manifest such a variation as is here indicated. Indeed it is quite possible that all the siliceous grains that are seen disseminated through the green schists, as seen at Tower, are compound grains, derived as fragments from jaspilyte that pre-existed as such, and that each one can be reduced, on examination, to the same minute granules as the jaspilyte itself. Therefore the question remains unanswered—why are the ultimate granules of the banded jaspilyte of so uniform a size, and so uniformly fine?

Again, it seems quite remarkable, on the sedimentary hypothesis of the origin of the jaspilyte, that it should be found, in its most typical forms and largest amounts, embraced in a rock which manifests the least of the characters that indicate sedimentary forces, and surrounded by rock that manifests unquestioned, or almost unquestioned, eruptive forces in its manner of origin.† This association is hard to explain except on the eruptive hypothesis for the origin of the jaspilyte. It might be said, with much reason, that in the midst of the basic eruptions, or at intervals of rest from basic eruptions, some acid eruption took place, and that the erupted matter assumed such forms, and such relations to the basic, whether in the presence of oceanic waters or on land, as the circumstances required, in just the same manner as the materials of basic eruption. To this the mineral nature of the jaspilyte is the greatest obstacle.

*Name.* The massive "greenstone" stage of the Keewatin has no distinctive name. It has sometimes been referred to as the

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\* Fifteenth report, pp. 226-230.

† Attention has been called to the distribution of the jaspilyte masses by Mr. H. V. Winchell *American Geologist*, January, 1889. *The diabasic schists containing the jaspilyte beds of northeastern Minnesota.*

"Kawasachong rock," since it forms the falls of that name at the mouth of the Kawishiwi river, on the south shore of Fall lake. But it is not desirable that such a name be perpetuated. *Kawishiwin* would be better, and it would be appropriate since this river runs for many miles, and some of its tributaries for many more, over rock belonging to this epoch of the Keewatin.

*Parallels of the Keewatin.* The writer has seen at but one place in the Northwest, outside of Minnesota, what he believes is the stratigraphic equivalent of the Keewatin. This belief rests entirely on lithological resemblance, with some general stratigraphic parallelism. In general, the groups which Dr. C. Rominger has described as "serpentine group" and "dioritic group,"\* in the region of Marquette, exhibit the characters of the Keewatin. There may be, as thought by him, an essential difference between the dioritic and the serpentine groups, but their affinities are very close, and indeed nearly all the characters, in limited areas, are found in the Keewatin. The serpentine rocks may ultimately be found to consist of the old volcanic cones, now tilted to lie at an angle of 90 degrees, more or less, from the position they originally occupied, from which issued the ejectments that were consolidated to form the dioritic schist group. In that case they would fundamentally be of about the same age as those schists. However that may be, no one can read the careful description of the dioritic group by Rominger, be he familiar with the Keewatin, without being struck with the great mineralogical similarity. (See also 16th report, pp. 47-48.)

There is, however, an important evidence of this parallelism to be drawn from a comparison of the stratigraphy. In the Marquette region the mica schist group is but feebly represented, and is not at all shown by Rominger on his map of the region. It is included by him in his granitic group. But the dioritic group comes at once into contact with the granitic rocks of the "granitic group." This is shown to be interbedded sometimes with the base of the dioritic group, and the granite to be apparently produced sometimes by the fusion and extrusion of some of the beds of the dioritic, or from some of the lower strata, forming knobs and sudden enlargements of granitic rock within the schists of the dioritic group.† The same kind of indistinct, incipient crystallization as described by him has been noted at about the same horizon in the schists of the Keewatin north of

\* Geol. of Mich., Vol. IV, pp. 22, 24, 26, 27.

† Geological survey of Michigan, Vol. IV, 1881.

Gunflint lake, and between Ogishke Muncie and Kekekebic lakes, and the same gradual inter-bedded transition from the schists to a sub-granitic rock. In the same way also great overflow areas of acidic syenite or "granite" are found in connection with both.\*

But the most remarkable stratigraphic coincidence is the relation of the Keewatin and the dioritic group to the overlying formation. In Minnesota it is the iron-bearing Animike, and at Marquette, it is the "iron group," of Rominger. This relation is one of unconformity. For evident reasons, which need not be elaborated here, the "iron group" of Rominger is considered to be on about the same stratigraphic horizon as his "arenaceous slate group." They are not shown by him to be distinct, although he supposes them to be separated by the "quartzite group," and in both of them are found important bodies of ore in the Marquette district. They have the same relations to the dioritic group, as described by him, and their geographic distribution, as separately delineated on his geological map, especially when taken in connection with his geological descriptions, is inexplicable on the supposition of their separate identity.

In the light of what has been published by the Minnesota survey respecting the unconformable superposition of the Animike over the Keewatin, nothing further need be said as to that fact. But when this unconformity is extended to the Marquette region, and the iron-ore beds there so much worked are placed above that line of unconformity, it may need a concise statement of the evidence to make it appear plausible. While it is in perfect accord with the published conclusions of the Michigan and Wisconsin geologists, to put the ore-bearing rocks of those states in the "Huronian," it is not in accord with them to separate that horizon from the dioritic schists which really embrace an ore horizon of an older date, by a plane of unconformity; but under the term "Huronian" have been grouped, in one essential concordant series of strata, all the rocks of the district younger than the fundamental gneiss or the Laurentian. Later Dr. Rominger has stated that some of the granite of the district is eruptive and of later date than the associated schists. (Geol. of Mich., Vol. IV, pp. 17 and 22.)

The reader is therefore referred to the following quotations

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\* The hematite lodes at Tower seem to have their representatives in the dioritic group of Rominger, but they have not proved productive enough to support regular mining. Such are mentioned by him on pp. 25, 27, 29, 30.



from the descriptions of Dr. Rominger of the relation of the "dioritic group" to the overlying "iron group" and "arenaceous slate group."\*

Page 72; Speaking of the surface rock of the environs of Negaunee and Ishpeming, which belong to the "iron-ore group," he says: "The strata are in an exceedingly disturbed condition \* \* \* These disturbed beds lie, in every instance, directly, but very often unconformably, on chlorito-hydro-micaceous schists, or on crystalline dioritic masses which are constant associates of these chloritic schists." \* \* \* "Overlooking the extremely plicated and corrugated condition of the strata, they form, considered in their totality, a synclinal basin, hemmed in between dioritic ridges."

Page 76; "The discordance existing between the dioritic and the iron-bearing rock groups is obvious in the majority of natural or artificial exposures, although it often occurs that they adjoin each other in parallelism."

Page 82; "The ore-bearing beds in the lake Superior mine lie in a steep inclination, with northern dip directly on the diorite, or on schistose beds belonging to this group, but in other parts of the mine the strata are seen to be bent and folded repetitiously, and to dip in the most irregular way."

Page 83; "The deposits visibly underlie the jaspery massive rock-ledges and repose in a much corrugated condition on the schists of the diorite group."

Page 86; "In the abandoned pits of the old Tilden mine, and in several neighboring natural exposures, the ore-formation is found to repose on the diorite, or on the schists belonging to this group, but, as it seems, always in discordance."

Page 108; Speaking of the "arenaceous slate group," he says: "The strata lie on the side of a diorite hill dipping under a low angle toward it in a northern direction, and a few hundred steps further east another body of these ledges lies in a slanting position on the diorite."

Page 114; "On the south side of the large cluster of diorite knobs, north of the New York mines, we generally see the ore-formation in direct contiguity with the diorite; but on the higher part of one of the rock bluffs another kind of stratified rock [i. e., the arenaceous slate group. N. H. W.] is found to repose on the diorite in seemingly discordant position."

These statements are sufficient to show that in the Marquette region there was a profound break, or unconformity, that separated the dioritic group from that next succeeding, as marked and as general, as that which separated the Keewatin from the Animike. The fact that it has not generally been recognized, and when so observed that its significance was not noted, may be explained by the great confusion that prevails at Marquette in all the dip and strike of the rocks, due to disturbances that involved both the older and the later terranes.

Further evidence of this parallelism is found in the fact that,

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\* Geology of Michigan, Vol. IV, 1881.

in the same manner the Keewatin, and the "dioritic group" of Rominger, are unconformably overlaid by a more recent quartzite, as will appear later in this review.

*Jaspilyte is in the Keewatin and the dioritic group.* There is a general lithological resemblance as already noted. It will be necessary here only to call attention to one. The Keewatin contains the typical jaspilyte deposits of Minnesota—i. e., those that have chalcedonic silica as their chief characteristic, and occur in curiously ribboned contorted bands or masses, affording a hard specular hematite. Although Dr. Rominger does not employ the term *jaspilyte*, he seems to make several references to it in connection with his account of the dioritic group. Such references may be found on pp. 27, 29, and 30. In other places it seems as if the descriptions that he has recorded of the phenomena of the iron mines, all of which he supposes to be in the "iron group," and not in the dioritic group, can apply only to the dioritic group. This is true particularly of some of those in the vicinity of Ishpeming. Dr. M. E. Wadsworth's observations and figures\* seem to indicate the same. The manganesic soft hematite, and the limonitic ores, which are also "jaspery," are not believed to belong to the same formation as the hard jaspilyte-hematite, but to the overlying "iron group." It is true, however, that it is impossible, at present, to indicate fully the petrographic difference that may distinguish the jaspilyte-hematite of the Keewatin from the jaspery beds of the iron-ore group. That will be subject for further study.†

*Possibility of rocks younger than the Keewatin, before the beginning of the Taconic.* We have seen that the Keewatin was terminated by an increased eruptive activity, producing distinctively, in Minnesota the "greenstone range," or the Kawishiwin rocks. We have no distinct knowledge of any later sedimentary beds prior to the unconformably overlying Taconic (or Animike). There are, however, some problematical rocks that different members of the Minnesota survey have noted whose position in the stratigraphic column has not been determined. They have been designated *muscovado rocks*, and in some places they hold a position

\* Notes on the geology of the copper and iron districts of lake Superior. *Mus. of Comp. Zoology*. Geol. Series, Vol. I.

† The reader is referred to the rock "talcose conglomerate," described by Dr. E. Hitchcock in the *Geology of Vermont*, for a probable New England representative of the Stuntz conglomerate of the Keewatin. Indeed there is great reason to suspect that the Keewatin horizon in all its features exists in the "talcose slates" of western New England.



some distance south of the strike of the Kawishiwin and spread over several miles of area. It is not intended to discuss them here at any length. They may be some part of the Taconic, and it is only suggested that they may be a sedimentary formation that accumulated subsequent to the Keewatin before the submergence that brought the Taconic unconformably over it.

*The age of the Taconic (Animike, Huronian).*

How long an interval of time passed, and what its events were, separating the Kawishiwin epoch from the Taconic, it is impossible to state. But it is evident that there was a great change in the surface of the earth, wherever this succession is found, which tended to allow not only submergence of some of the pre-existing land area, but such general quiet, speaking broadly, as would allow slow sedimentation, and apparently the growth of plants and animals. The black carbonaceous shales and slates, or in other places the graphitic character of the rocks of the Taconic, where, as on Pigeon point, they have been metamorphosed, sufficiently indicate the presence of plant life in the Taconic. In other places faint tracings of rude forms, apparently of vegetation, have been observed on the sides of some of the black slates. But of these forms none from Minnesota have been carefully examined and described.\* Of animal remains none have been found in Minnesota that belong in the black slates, but in the quartzite overlying, some primordial fossils have been found† corresponding with the fauna of the Paradoxides horizon of eastern North America, indicating, so far as this evidence goes, the age of the "Granular Quartz," and of the Red Sandrock of Vermont. This formation seems to be represented in the Rocky mountains, where the primordial fauna has been mentioned by Mr. R. G. McConnell‡ along the line of the Canadian Pacific railroad. Still earlier Mr. C. D. Walcott described it in Nevada.§ There is no doubt that this formation is widespread. The coincident identity of the old Taconic with the "Lower Cambrian" and the Huronian need not be discussed here, and those who believe that these represent different rock-horizons will, of course, not accept the generalized

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\* Sixteenth report, pp. 78, 239.

† Thirteenth report, p. 65.

‡ Geol. Sur. of Can., 1886. Rep. D., pp. 29-30. Am. Geol., January, 1889.

§ Thirtieth bulletin, U. S. Geol. Survey.

history that is here indicated. To the writer there seems to be no way to group the terranes that are found in the Northwest, subsequent to the Keewatin, belonging in that general horizon that has been accepted widely as "Huronian," except to make them the parallel of that earlier-named system which was so long studied by Dr. Ebenezer Emmons, and by him named Taconic.

*The opening of the Taconic.* So far as we know the Taconic was characterized, from New England to the Black Hills, by an epoch of increased submergence beneath the ocean. There is great reason to believe that all the earlier formations of the super-crust had been subjected to great flexure and uptilting before this submergence. In Minnesota the underlying beds are almost vertical, nearly everywhere, and the Taconic beds dip at angles generally less than  $30^{\circ}$ . It can hardly be supposed that throughout so great an area the subjacent strata could by any transformation be placed in verticality beneath the Taconic since the deposition of the latter, without equally disturbing the Taconic also. Indeed when such rupturing of the strata, since the deposit of the Taconic, has been observed, as in the region between Ogishke Muncie lake and Gabemichigama lake, the disturbance has involved the Taconic rocks also, and has turned them into various and excessive dip. Such exhibitions, however, are exceptional, so far as observations already made in Minnesota indicate. The Taconic strata maintain, both in Minnesota and Wisconsin, as in the Mesabi and Gogebic-Penokee ranges, a regularity of dip and strike, and a low angle of inclination which are not seen in any of the older rocks.

There is a conglomerate at the base of the Taconic. This is a fragmental, sedimentary conglomerate, embracing numerous rounded fragments from the earlier formations of the region. The lowest stratum seen in the Huronian, in the region north of lake Huron, is reputed to be a quartzite which varies to a quartzose conglomerate, and by the accession of organic matter assumes a dark color, becoming a "slate conglomerate." In the latter form it has a wonderful development, both in Canada and in Minnesota\*. It is the Ogishke conglomerate, of the Minnesota reports. It seems to be the Missisauqui quartzite and the slaty conglomerate of the original Huronian area. This conglomerate is followed by an immense thickness of dark slaty

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\* On the passage of the quartzose condition into the slaty, each being pebbly, see Logan, 1863, *Geology of Canada*, pp. 55, 56, 594.

rocks, often cherty, or flinty, frequently very dark-colored, generally siliceous, alternating with thin quartzites, and grayish feldspathic quartzites, all in conformable stratification, as a whole. Variouslly interbedded with these slates and quartzites, from bottom to top, are beds of basic eruptive rock, and it is necessary to suppose that such eruptions must have been accompanied, in some places, by extensive disturbance and metamorphism. As a group, however, the Taconic strata sustain a uniformity of lithology, within allowable limits of variation, which marks them as one great series, which experienced essentially the same history over very extensive parts of America, and in that respect they show the same individuality as the Keewatin and the Vermilion, which names cover respectively the subcrystalline (earthy) and the crystalline schists of the Northwest. The Taconic is essentially the Olenellus group of strata of the primordial.

*The iron ores of the Taconic.* The Taconic is the chief iron-bearing formation of the Northwest. It is the "Huronian" iron-group of the Marquette region, the Penokee-Gogebic range in Wisconsin, and the non-titanic ores of the Mesabi range in Minnesota. The writer is not familiar with the Menominee iron district in Michigan and Wisconsin, but the described characters and the parallelisms that have been claimed of the Menominee rocks by Brooks, Rominger and Irving, with those at Negaunee, sufficiently show that, as claimed by Emmons and Houghton in 1846, the Menominee rocks are also of the Taconic.\* The numerous important iron-ore deposits that have long been known, and formerly extensively exploited in eastern New York and western Vermont, Massachusetts and Connecticut, embracing hematite and limonite, often manganesic, afford parallels with the iron-ore deposits of the Northwest that are here classed in the Taconic. Some of the descriptions of the ore-pits of Washington, St. Lawrence and Dutchess counties, of eastern New York, recorded by Mather and Emmons in their reports on the geology of those counties are applicable, in many respects, to those of the Penokee-Gogebic and the Mesabi ranges in the Northwest.

*The Granular Quartz.* As used here the term Taconic does not embrace the "Granular Quartz," of Emmons, as there is sufficient evidence, in the writer's opinion, for making that the par-

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\*Agriculture of New York, 1846, Vol. I, p. 101.



allel of the true Potsdam of New York state.\* The chief reasons for this separation may be given.

(a) *The stratigraphic relations of the Granular Quartz and the Potsdam of N. Y. are the same.* In the first place they are seen to lie unconformably on the older "granite," one on the west flank of the Green mountains, and the other on the northern and eastern flanks of the Adirondacks; and in the second place they bear the same relation to the Red sandrock of Vermont. By Dr. Emmons the Red sandrock was regarded the equivalent of the Potsdam and Calciferous sandrock, but it is described by the Canadian and Vermont geologists as Potsdam. Emmons, Logan, Hitchcock and Marcou agree in making it unconformable on the underlying slates,† but Mr. Walcott fails to find the unconformity at the point described by Marcou.‡

It seems, however, that the preponderance of evidence is in favor of such unconformity, especially when it is further considered in its agreement with observations supposed to be at the same stratigraphic horizon in the Northwest and in the Black Hills. The Potsdam is therefore here the Red sandrock, and unconformable on older slates. But by the discovery of the same fauna in the Granular Quartz and in the Red sandrock Mr. Walcott has shown that these are stratigraphically the same formation. Therefore the Granular Quartz must lie unconformably on other terranes than the "Primary" of the Green mountains.

(b) *While the fossils of the Granular Quartz are cognate with those of the Red sandrock, they are also cognate with all that have been found in the true Potsdam.* They are, however, essentially different from those of the so-called Potsdam of the Mississippi valley. This need not be amplified. It is based on one of the cardinal distinctions that subdivide the primordial fauna.

(c) *The Red sandrock overlying the Georgia group unconformably, as already stated, the Granular Quartz and the Potsdam must have the same stratigraphic position.* While this has not been observed in New York and Vermont (or when so seen the overlying strata were considered to belong to the Red sandrock) it has been observed to be the relation subsisting between an identical quartzite in the area of the original Huronian, in northern

\* Bull. No. 30, U. S. Geol. Sur. p. 18.

† Geology of Vermont, Vol. I, pp. 260, 317. The Taconic of Georgia and the report on the geology of Vermont, *Mem. Boston Soc. Nat. Hist.*, Vol. IV.

‡ American Geologist, March, 1888. A great primordial quartzite.

Michigan, and in northeastern Minnesota, and a series of slates underlying. In other words; The Thessalon quartzite of the Huronian overlies (probably) unconformably the Plummer argillites. The Pewabic quartzite and the Wanswaugoning quartzite overlie the Animike in northern Minnesota, but the exact contact has not yet been observed; while in the Marquette region the "quartzite group" of Rominger overlies unconformably his "iron group."\*

If we carry the comparison further:—

(d) *The stratigraphic relations of the Granular Quartz and Potsdam to the "granite" are the same as those of a great primordial quartzite of the Northwest to the "granite."* This western quartzite has been designated, not only Potsdam, but Sioux quartzite, Baraboo quartzite, New Ulm quartzite, Barron county quartzite, Wanswaugoning quartzite, as well as Pewabic quartzite, and in numerous instances it has been observed to lie unconformably on the granite supposed to be of Laurentian age.

This comparison could be extended to include the Black Hills of Dakota and the primordial section of Nevada, and it would appear that the relations here pointed out for this quartzite are of wide application and mark it as a formation of continental extent.

(e) By Mather, Rogers, and others who have opposed the Taconic system the Granular Quartz was referred to the Potsdam sandstone.

These considerations seem to justify the conclusion that, contrary to the opinion of Dr. Emmons, the Granular Quartz should be placed at the top instead of at the bottom of the Taconic system, and that the Taconic black slate underlies it unconformably. This does not disturb his general idea that the Taconic is a sub-Potsdam formation, even using the term Potsdam in its original sense as here defined. It is, furthermore, in accordance with the views of the Swedish geologists to find the quartzite (Paradoxides) horizon, lying above the Olenellus beds, and indicates that the Braintree (Mass.) quartzites overlie the Braintree slates.

[NOTE.—The only intimation that the writer has been able to find that the Granular Quartz and the Red sandrock had ever been regarded the same formation by the early geologists is a statement in the "Geology of Vermont," Vol. I, 1861 (issued in 1862, Walcott), p. 346. It is by Dr. Edward Hitchcock, and in the following words: "A narrow strip of impure limestone partially sepa-

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\*Sixteenth report of the Minnesota survey, pp. 45, 46.



rates the quartz rock from the Red sandrock in Monkton. The limestone gradually thins out, and is finally lost, so that the quartz rock and the sandrock unite with each other; and probably the line of junction is only a line separating different degrees of metamorphic action upon the same formation;" but by different geologists both the Potsdam and the Granular Quartz have, on what seemed good evidence, at different times been regarded as the equivalent of the Red sandrock. Some confusion has arisen, as it seems, in the use of the word Potsdam, by the geologists who have examined the Champlain valley in the same manner as in the Mississippi valley.\* Some have applied the term to the great quartzite (the "Granular Quartz" in its different positions) and some to the later, looser sandrock, and Calciferous sandrock, that lie unconformably on the quartzite, and some to both varieties. The former is the horizon of the Paradoxides fauna, from New England to Minnesota, and the latter is the horizon of the Dicelloccephalus fauna. It will require a re-examination of the "sandstone of Potsdam," at the typical locality, to determine the question — which is the true Potsdam sandstone?]

### *The age of the Potsdam.*

*Equivalent names.* Under this heading are included here several local designations which have been applied by geologists to a formation that extends widely over the United States and Canada, the uniform characters of which, as well as its fossils and stratigraphy, indicate that they all belong to one great quartzite horizon. Some of these various names are: Granular Quartz, Red sandrock, Thessalon quartzite (of the original Huronian), Teal lake quartzite, No. 3, or quartzite group (of Dr. Rominger), Baraboo quartzite, Wanswaugoning quartzite, Pewabic quartzite, Sioux quartzite. Further east, it may be represented by the quartzite at Braintree, Mass., and the Paradoxides beds of Newfoundland. Further west it seems to exist in the Mt. Stephen section, and contains the fauna of the Bow River group, and of the "Prospect Mountain" quartzite. It is unquestionably found in the Black Hills, but fortunately it has not there received a special name, but is embraced under the term Potsdam. This is essentially the horizon of the Paradoxides strata of the primordial.

*Unconformable on the Taconic.* It has been stated that this quartzite is unconformable on the Taconic. This is sufficiently established in Vermont, in Michigan, Wisconsin and in the

\* Emmons noticed the difference of lithology, but not the unconformity of stratification. *Geol. of N. Y.*, Vol. II, 1842, p. 269.

Dr. Edward Hitchcock seems to have figured this unconformity in Vol. I, p. 265, of the *Geology of Vermont*, but he considered the "quartz rock" here to belong to the Laurentian. At Chazy Mr. Jules Marcou states that he observed an unconformity between the Potsdam and the Chazy strata, the divergence of dip being 15 degrees.—*The Taconic system and its position in stratigraphic geology*. Proc. Am. Acad. Arts & Sci., Vol. XII, p. 190.

Black Hills of South Dakota. It is presumably so in the area of the original Huronian.\* Such a widespread non-conformity indicates that the Taconic was closed by a widespread epoch of disturbance. Since the Potsdam is carried over the edges of the Taconic, and in many places is brought into contact with the "granite," which may be supposed to be older than either, it is evident that this disturbance was followed by a still further inroad of the oceanic waters on the land area of the continent. This submergence has effectually hid the Taconic formation from sight over very extensive areas, and led the geologists who saw the Potsdam lying on the Primary, in New York, to question the possibility of a formation several thousand feet in thickness belonging between them. It also produced a conglomeritic composition in the bottom of the Potsdam at nearly all places where the bottom beds have been seen.

*Further evidence of disturbance during the Potsdam.* The gradual or paroxysmal sinking of portions of the continent below the ocean during the Potsdam age was accompanied by other evidences of disturbance that have remained undeniable witnesses to this day. There were both basic and acid eruptions of great volumes of molten rock, which in some cases were interbedded in the Potsdam, and in others are found overlying it. These molten rocks are found generally to lie on the Taconic and the Potsdam both, but their date of outflow is fixed later than the beginning of the Potsdam by their stratigraphic relation to the Potsdam. Beds of gabbro are evenly spread with quartzite strata above and below them, in the Pewabic quartzite in north-eastern Minnesota. In general the gabbro lies on the Animike (Taconic) in Minnesota, but a favorable observation made at Chub (Akeley) lake† demonstrates that this quartzite was partially deposited over the Animike before the great gabbro flood occurred. The usual immediate overlies of the gabbro on the beds of the Taconic, is due to the fact that those beds were nearer adjacent at the points of issue of the molten rock. It also lies on the Keewatin as well as on the Laurentian; while the Potsdam is overwhelmed and nearly lost by the great mass of lava that issued from the interior of the earth during the time of its deposition. While the gabbro outflow seems to have been the most voluminous and remarkable in Minnesota, and to have been the

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\* In the St. Louis valley, near Thomson, the basal conglomerate of the Potsdam is unconformable on the Thomson (Taconic) slates. Tenth Minnesota report, p. 33.

† Sixteenth report, pp. 85 and 87.

earliest of the basic Potsdam eruptions, in the area of the original Huronian the Thessalon quartzite is generally cut by and buried under an eruptive of a slightly different kind, more resembling some of the "traps" of the later epoch. There is reason to suppose this may be due to one of two causes. 1st. That at the time of the gabbro flood in other regions the area of the original Huronian was exempt (or nearly so)\* from eruptive disturbance, and that the later basic outflows took place there after the region was elevated above the ocean; or 2nd. That while typical gabbro rock was being extravasated in Minnesota, and in some other portions of the country, a slightly different basic eruption was taking place in the area of the original Huronian. From the fact that some gabbro rock is found in the region of the original Huronian, it appears that the former of these hypotheses is more probably correct, and that there as well as in northeastern Minnesota, the basic diabase and finer trap-rock characteristic of the most of the Kewenawan, were of somewhat later date than the gabbro. That these darker, diabase traps issued at some date after the gabbro flood, is evinced not only by the dikes of the former that cut the latter, but also by the remarkable puddingstones of gabbro that are formed by the inclosure of isolated, transported masses within the diabasic sheets,† seen in the vicinity of Beaver Bay.

This basic eruption characterizes this geological horizon throughout its extent in Minnesota, but toward the east it seems not to have been so characteristic. It prevailed in some parts of Canada‡, and disturbances in the so-called "Quebec group" appear to involve this horizon of rocks. The Adirondack region has not been examined except about its margin. It is believed that this quartzite exists in many places involved with the gabbro rocks of those hills. Its outcrops about the flanks of these hills have been described at places where most accessible and named Potsdam sandstone. These descriptions are applicable to this quartzite in Minnesota—even to the vitrified surfaces that are so common in the west,§ and which are not known to

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\*One small knob of gabbro was seen near Otter Tail village. Compare 16th report, p. 29.

† Norwood, in Owen's report on Iowa, Wisconsin and Minnesota, p. 366; also Ninth Rep. Minn. Sur., pp. 30-31; Tenth Rep. Minn. Sur., pp. 112-113.

‡ Geology of Canada, 1863, p. 483, 865, 875, 879; Geology of New York, 1843, Mather. Part I, p. 444.

§ Geology of Minnesota, Vol. II, 1883, page 516, foot note. Geology of New York; Second district, Emmons; p. 269.



have been seen on any other formation though exposed in similar circumstances.

*Post-gabbro eruptions of the Potsdam age.* It has been difficult to affirm, until recently, the age of the gabbro outflow. It has generally been considered to have followed the Animike (Taconic) but that it was later than the commencement of the Potsdam was not known to the writer till he made the observations referred to above.\* What were the relations of the later basic eruptions of the "Kewenawan" to the gabbro has been described by Prof. Irving and by numerous other observers. There is no reason to affirm a long lapse of time between them, sufficient to allow the formation of an oceanic terrane requiring special designation. The later eruptive rock embraced and probably transported loosened masses from the gabbro, as evinced in the "feldspar masses" described by Norwood near Beaver Bay on the north shore of lake Superior, and the puddingstones observed by the writer. But this, rather than indicating a long intervening time, seems to imply a quick succession in the eruptions, or else a continued elevation above the sea so as to prevent the accumulation of intervening sediments. That there was no exemption from sedimentation after the gabbro is shown by, (1) the absence of any sign of ancient land surface, (2) by the continued and frequent interbedding of eruptive and sedimentary rocks through the entire Kewenawan (Geol. of Wis. Vol. III, p. 403), and (3) by the gradual transition of the basal conglomerate of the Potsdam, in favorable places, from a siliceous, or pebbly-quartzose, character, through a siliceous sandrock to a feldspathic sandrock, and to a pebbly volcanic tuff. Such transitions are frequent on the north shore of lake Superior. One of the most important observations was recorded in 1879,† when the basal quartzose conglomerate of the Potsdam was found, dipping in consonance with the shales and tufaceous conglomerates of the overlying Kewenawan, in the St. Louis valley, unconformable over the Thomson slates, and embracing lenticular spots of shaly rock and red (Kewenawan) conglomerate as constituent and conformable parts of itself. This shows a conformable, though somewhat intermittent, course of sedimentation from the basal conglomerate into the typical detritus of the overlying beds of the Kewenawan; the interruptions and the changes in the nature of the sedimentation being attributable to

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\*Sixteenth annual report, pp. 85 and 88.

† Tenth report, pp. 11, 32, 33.

the eruptive disturbances that took place in the adjoining regions. It will be seen at once that this links the Kewenawan to the gabbro, and both to the Potsdam.

*Acid eruptions during the Potsdam.* The dynamic forces that operated to bring molten basic rock to the surface of the earth in northeastern Minnesota also softened the acidic strata of the super-crust, which in some places seems to have culminated in the molten protrusions and lateral displacements of large masses. These acid eruptions, ranging from felsitic to granitic, are of limited amounts in Minnesota and Wisconsin. Sometimes they are in contact with the Taconic strata as at Duluth (10th Rep. p. 108), sometimes with the Potsdam,\* and sometimes with the basic eruptions of the Potsdam.† They are seen in contact with the Taconic slates of the original Huronian (16th Report), and there seem to be the direct result of change from some sedimentary, siliceous strata.

Whether this feature of the Potsdam is persistent through eastern Canada, and in New England, is uncertain, owing to the prevalence of definite "Laurentian" theories as to the age of most of the granitic rock that geologists have studied in that part of the country. There is, however, every reason to affirm a widespread and profound volcanic disturbance, extending from the Black Hills, at least, to Vermont and eastern Canada, that began in the Potsdam era and closed with that era, and that some of its results in the forms of acid as well as basic eruptive rock, as mentioned above for the Northwest, must characterize this formation in New England, there is good reason to expect. Indeed some descriptions of such phenomena have been published. Dr. Hitchcock mentions some Potsdam schists that contain "veins of granite whose feldspar is labradorite" (Geol. of Vermont, Vol. I, p. 264). There are many instances published where the slates of the Taconic including the granular quartz are so placed as to run beneath masses of granitic rock, but such a possibility has been negatived promptly by resort to that easy hypothesis of a fault, to bring up the "Laurentian." Dr. Emmons describes such instances.‡ Similar facts have been mentioned by Prof. C. H. Hitchcock§ in New Hampshire,

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\*Geology of Wisconsin, Vol. II, pp. 251, 506, 522.

†Tenth Minnesota report, p. 110.

‡Geology of New York: Second district, 1842, pp. 141, 145, 159. Agriculture of New York 1846, Vol. I, pp. 63, 94.

§American Geologist, April, 1889, p. 254. Geology of New Hampshire.



although there is no certainty that the slates described by him are of the age of the Taconic. Prof. Hitchcock makes it very apparent that the granites of New England cannot all be placed in the Laurentian any more than they can in Minnesota.

The Potsdam age closed, therefore, with the cessation of the disturbances and volcanic eruptions which introduced it. The beds that were formed were left in upturned and fractured attitudes for the attacks of the succeeding St. Croix age. These strata embraced not only the basal quartzite of the Potsdam, but the gabbro, and all the succeeding eruptions that are found in the Keweenaw. Here would necessarily appear a marked and extended plane of unconformity, and this fact, when sufficiently recognized, will be found to distinguish the rocks at many places — whether Potsdam or St. Croix — and be a criterion by which to judge of their stratigraphic place in the geological column. In other words, the Potsdam is unconformable on the older gneiss and slates and schists, and is cut and covered by eruptions of the same age as itself. It would not normally be found unconformable on rocks of its own age over wide areas, although contemporaneous disturbance might certainly produce local non-conformity. The later formations may show non-conformity over wide areas of the rocks of the Potsdam, and such we find to be the fact.

*The age of the St. Croix sandstone.*

That it may be made plain to the reader just what strata are considered by the writer the Potsdam sandstone, this history may be carried one step further. This is the more necessary inasmuch as some of the steps in the history which are well known in the Northwest, have not yet been recognized, or have not been admitted as facts, by most of those who have examined the geology of the Champlain valley. It appears that a very widespread succession of physical changes affected the lower paleozoic and crystalline terranes in America with a uniformity of effect that is surprising, and which leads to very serious questioning of the doctrine that formations can not be recognized by their lithology from place to place because of the liability to physical change. There is, in fact, a remarkable persistence of lithologic characters, and of stratigraphic relationship, between Minnesota and New England. The satisfactory establishment of some points in the geology of the Northwest throws much light on moot points in the geology of the east. While most of these

coincidences and identities have to be reserved to a later discussion, one of the most interesting concerns immediately the formation which is under consideration—the *St. Croix sandstone* of the Mississippi valley, and its relation to the Potsdam.

*The separateness of the St. Croix from the Potsdam.* It has already been stated that some confusion has been introduced by the use of the term Potsdam by different writers in different senses. This began with the early descriptions of the geology of eastern New York, Vermont and Canada. This confusion was one of the most obtrusive problems that confronted the writer in 1872 in the preparation of his first annual report. In order that a more definite understanding might attach to whatever he should be called on to publish respecting this horizon he chose to designate the lower formation Potsdam and the upper one St. Croix, and this distinction has been observed in the later publications. If not correct it has at least served to give definiteness to all his descriptions.

This problem was given pointedness a short time prior to the beginning of the Minnesota survey by the writings of Prof. R. D. Irving, who had shown that in Wisconsin the upper formation was unconformable on the lower.\* Irving's papers on the Wisconsin quartzytes proved the existence of two formations in places where hitherto, by some, there had been supposed to be but one, and, assuming the upper, or horizontal, beds to be the Potsdam, based on the conjectures of Prof. James Hall published in the Sixteenth (N. Y.) Regents' report, he announced the upper one to be the equivalent of the New York formation and the lower one he relegated to the "Huronian," that convenient limbo to which it has been customary to consign uncertain stragglers from the upper "Silurian" and from the nether "Laurentian." It was not presumed at that time that the geology of the Northwest would be found to tally closely with that of New York, and as there was no mention of such a great "Huronian" quartzite there, nor in New England, the presumption was that the "Huronian" was a formation that affected Canada and the Northwest, and that, therefore, this great northwestern quartzite would not be found further east than the northern shore of lake Huron. Only the "Potsdam" was described in eastern New York.

Upon pushing the distinction further east, however, and upon making a widestudy of the older terranes, which, when better

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\* Am. Jour. Sci., Feb., 1872; April, 1872.

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understood, are found to exhibit a surprising concord of essential features with those of more eastern as well as western regions, it is found that there is every reason to believe, not only that there exists the same great underlying quartzite in New England and eastern New York, but that there are unmistakable evidences of the same non-conformity between it and the overlying horizontal, or nearly horizontal, beds. Moreover, it is equally plain, on making an examination of descriptions that have been published by the eastern geologists, that both the formations have been with great positiveness called Potsdam sandstone. It is very evident that no little misunderstanding has resulted from a failure to observe and acknowledge this important line of non-conformity. But wherever it has confronted the geologist in Vermont or eastern New York, it has been glided over indifferently or has been accounted for by some outre hypothesis, such as "overturn" or "fault," or temporary "non-deposition," or "metamorphism from contact with the Primary."

In order to support this statement some references will be made to the published descriptions of the "Potsdam" in New York. No reference will be made to the Granular Quartz nor the Red sandstone, both of which the writer believes, as the reader will have observed, are identically and only, the Potsdam formation; but to some statements concerning the "Potsdam sandstone" as understood by the geologists who made them.

*Emmons.* In his report on the geology of the Second District, 1842, Dr. Emmons uses these words in describing the Potsdam in Essex county — "In consequence of this rock presenting two quite distinct varieties, and those varieties being well developed, the one at Potsdam, St. Lawrence county, and the other at Keeseville, I have sometimes given it a compound name — the *Potsdam and Keeseville sandstone*; for the reason that at the former place a beautiful granular variety, and at the latter a harder and more crystalline mass predominates, which resembles the granular quartz of the Taconic system." Near Keeseville the rock that outcrops he describes as exhibiting some interesting changes upon the surface of the layers, presenting "a smooth and semi-vitreous surface — a kind of glazing;" by which he seems to have meant the same polished or glazed surface that appears frequently on the Potsdam in Minnesota. It is plain, therefore, that Emmons noted the contrasting lithology, but, so far as the



writer has observed, he did not recognize any unconformity in the "Potsdam," or between it and the Calceiferous.

*E. Hitchcock.* There is not much doubt that Dr. Hitchcock noted exactly an unconformity between the two formations at West Haven (Geol. Vermont, Vol. I, p. 265), but he regarded the lower one as a part of the "Laurentian," and the upper as the Potsdam. He states that "the only way of distinguishing the Laurentian character of the [lower] deposit is by the higher dip of its strata, upon which the Potsdam sandstone rests unconformably. A section passing across the south end of West Haven, in fig. 168, represents the unconformable relations of the Laurentian rocks and the Potsdam sandstone to each other. Were it not for this discordance in the stratification we should regard the lower rock as Silurian because it does not differ lithologically from the sandstone above. But in following the strata northwardly the quartz rock becomes more gneissoid. Some of the specimens in the cabinet are very distinct gneiss, one of them with the labradorite, the characteristic species of the feldspar of the Laurentian series."

Let the reader compare the description of the "quartz rocks" of the Laurentian with the following description of the "Potsdam" *at the same place.*

"The third variety very closely resembles the Laurentian gneiss. It seems to pass into it by insensible gradations. The specimens obtained are from the southwest part of West Haven. All the constituents of this rock are very small, and occasionally the feldspar or the mica may be wanting \* \* \* Associated with these crystalline schists are veins of granite, whose feldspar is labradorite. This mineral is mostly confined to rocks below the Silurian system; and in West Haven it extends only a few feet into the base of the Silurian, and that in small veins from three to ten inches wide.

"The unconformability of the dip of this rock to the Laurentian beneath [sic] may be seen at the extreme southern point of West Haven. Upon the lake, opposite the termination of the railroad the dip of the older rock is  $36^{\circ}$  East, and only a few rods east the dip of the sandstone is only  $9^{\circ}$  East. As the south part of West Haven terminates in a cliff this section can be seen distinctly from quite a distance. The rock with the greater dip is as distinctly quartz rock as the other, and there is also a large ledge of quartz rock upon the west side of lake Champlain with the same inclination. Hence the sudden change in the dip

is to be regarded as a safer distinction between the Silurian and Laurentian series than a difference in lithological character."

Setting aside Dr. Hitchcock's identification, either of the following interpretations of the facts, in the light of what has since been learned of the geology of the Taconic and the granular quartz, would be possible. (1) The lower rock is the Potsdam (granular quartz) and the upper is the St. Croix; or (2) The supposed unconformity is only an illusive appearance in the same formation, perhaps false bedding, or oblique stratification, or a sheeted disintegration which sometimes is superinduced by weathering even in the firmest crystalline rocks. In the light of further considerations the latter explanation seems most probable.

(a) Prof. C. B. Adams had stated in his first annual report that the Potsdam sandstone only reached within half a mile of the state line near Whitehall, and did not enumerate it at all in his table of Vermont formations.\* If this were true it would be necessary to consider this West Haven quartzite as the Red sandrock or the granular quartz. Either of these explanations, to so strong an opponent of the Taconic as Hitchcock was at that time,† would be avoided if possible. For, to class it as a part of the Red sandrock spur that shoots southward from the town of Monkton, the last remnant of which his map represents on the south line of Orwell, bearing in a direction toward West Haven, only seventeen miles distant, would be to bring the "Medina sandstone" below the Calciferous which exists in the immediate vicinity and into contact with the Laurentian; which would necessitate the abandonment of the "metamorphic" idea that the Red sandrock and all the Taconic rocks were changed conditions of the Lower and Upper Silurian of the Champlain system of New York. Also, to admit that it is an outcrop of the Granular Quartz of Dr. Emmons, would in like manner bring the Granular Quartz beneath the Calciferous and even unconformably beneath another sandstone that might be the Potsdam; this would substantially confirm everything that Emmons claimed for his Taconic. These alternatives were clumsily obviated by introducing the Laurentian. That this "Laurentian" is the gabbro of the Potsdam age is probable from the nature of the feldspar which it is said to contain.

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\*First annual report, Geology of Vermont, 1845, p. 61.

†It is evident that a change of opinion was accomplished in Dr. Hitchcock's mind during the preparations of this report. This is intimated in Vol. I, p. 435.



*W. W. Mather.* So far as discoverable all the descriptions of Potsdam by Prof. Mather\* apply to the lower or quartzite division. He notes repeatedly his belief that the Granular Quartz is a metamorphic condition of the Potsdam.

*L. Vanuxem* distinctly mentions the same varieties of rock in the Potsdam as Dr. Emmons, and employs the double designation "Potsdam and Keeseville sandstone," but he mentions no unconformity. He intimates, however, that the Potsdam, in its loose-textured variety, is with difficulty distinguished from the Calciferous sandrock. The latter he describes at numerous places in immediate contact on the primary.

*Sir Wm. Logan.* In the *Geology of Canada*, 1863, this formation is amplified into "Potsdam group," and includes a thickness, on the St. Lawrence river, of 540 feet. This group embraces not only the true Potsdam but several beds of conglomerate, white sandstone suitable for glassmaking, fucoidal beds, limestones and a singular breccia like that described by Emmons at Chazy and said to separate the Potsdam from the Calciferous. The fauna which appertains to the upper layers is that characteristic of the Calciferous. It is evident that the true Potsdam is here confounded with the overlying St. Croix-Calciferous, and that the Calciferous is restricted in the words of Logan, essentially, to "a granular magnesian limestone or dolomite, which from its rough weathered surface and slight effervescence with acids may have suggested the name of Calciferous sandrock." In the annual reports the Potsdam had not been recognized about lake Huron; but the lower great quartzite had been included, along with all the strata equivalent to the Taconic under the term Huronian. His opinion of some quartzite beds on Murray bay which at first Logan regarded as Potsdam, and which he so described (*Geol. of Can.*, 1863, p. 96), he modified by adding a footnote stating that it had been ascertained by Dr. Dawson that "these quartzites really belong to the Laurentian series."

*James Hall.* The Potsdam sandstone does not occur in the Fourth District, on which Mr. Hall reported, but he examined it on the north side of lake Ontario, and subsequently on lake Superior and in the Mississippi valley. His general description in the report on the Fourth District is such as would apply to the lower quartzitic portion.

In the lake Superior report of Foster & Whitney (1851) the step which was inaugurated by Logan in the creation of the

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\*Geology of New York, First District, 1843.

"Potsdam group," embracing the quartzite and the overlying sandstone in one designation, was completed by the entire severance of the lower formation from the name, and its application only to the upper or nearly incoherent sandstones. At the same time the quartzite, along with all the strata of the Taconic associated with it, were included in the "Azoic," embracing both the Laurentian and Huronian. This upward movement of the names of the New York formations, is shown by the following words (p. 114): "The Potsdam sandstone of New York is a quartzose rock whose particles are firmly aggregated, while the the same rock, on the northern slope of lake Michigan, is so slightly coherent, that it may be crushed in the hand. The Calciferous sandstone of New York, when traced west, passes into a magnesian limestone." This supposed change in the nature of the formations toward the west is largely imaginary; the change seems to consist rather in the transference of the original names to strata higher in the scale, and the creation of new names for the abandoned strata. All the authors of this report, including Prof. James Hall, apply the name Potsdam only to the friable sandstones which are unconformable with the Copper-bearing traps and basalts which, as already shown, are of the age of the lower quartzite.

As to the paleontology of the Potsdam in New York, which is quite meagre if the more recent additions from the Calciferous be disregarded, an interesting problem centres on the fossils *Lingula* (*Obolella*) *prima* and (*Lingulepis*) *antiqua*. By Prof. Hall these are assigned to the Potsdam. In respect to *L. prima* it is reported at Keeseville on the authority of Dr. Emmons, and it is reported from the Mississippi valley on the St. Croix river. To the writer the St. Croix beds have been known for some years as belonging about to the horizon of the Calciferous, and they have been so parallelized by Irving.\* The Calciferous, here including the magnesian limestone known as Lower Magnesian, is unconformable on the trap rock, and, in common with the sandstone underlying it, becomes conglomeritic by reason of such unconformable contact. The beds here exposed are not so low as the lower layers at Stillwater where the first specimen of *Dikellocephalus* was discovered by Dr. Owen. It would seem, therefore, if we can depend on the indications of paleontological evidence, that the Potsdam at Keeseville, containing *Lingula prima* would be considered substantially the parallel of the Calcif-

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\*U. S. Geol. Sur. Monogr. V. Copper-bearing rock, of lake Superior, p. 446.

erous beds at Taylor's Falls in the St. Croix valley. What are the facts? On re-examining Dr. Emmons' description of the sandstone on the Au Sable river in his report on Essex county, he says that this general range of sandstone, containing the *Lingula prima* according to Hall, *reposes against the hypersthene rock*, (i. e., the gabbro) and contains *Lingula antiqua*; and Prof. Hall corrects this identification of Emmons by saying the species figured by him from this place is not *L. antiqua* but *L. acuminata* of Conrad, which is a Calciferous species, and does not occur, to his knowledge, in the Potsdam.\* Therefore all the evidence from paleontology and from stratigraphy, so far as it can be gathered from the report of Emmons and the first volume of the Paleontology of New York, indicates that the beds on the St. Croix are the equivalent of those described at Keeseville, and that both belong to the Calciferous; at least that they are both later than the eruptive epoch of the Potsdam as here limited.

This brief examination of some early descriptions of the Potsdam of New York, which might be extended to include several other names, is sufficient to prove the truth of the foregoing statement that the distinction which has been made in the Northwest could with propriety also be made in the East, and that a plane of non-conformity between the Potsdam and the Calciferous extends through eastern New York and Vermont, and that there, as in Minnesota, the upper (St. Croix) sandstone has greater affiliations with the strata that succeeded the break than with those that preceded it.

In this review it is assumed that the "sandstone at Potsdam" preceded this non-conformity. It is evident that some re-examination should be made of the region before this can be considered established. Dr. Emmons, in his section passing from Canton to Parishville (Plate ix. *Geol. of New York*) shows that *gneiss* exists at Potsdam below the sandrock, and this rock he always keeps definitely distinct from *hypersthene rock*, which he argues was elevated at a later date than the Green mountains. The parallelism of position between the Potsdam sandstone at Potsdam, and the Granular Quartz, in this respect, both lying upon the gneiss, not only indicates a possible parallelism of age, but that they are possibly older than the Keeseville sandstone which rests against the hypersthene rock.

It is further assumed, in this review, at least in making the

\*It is put in the "Potsdam group" by Logan, *Geol. of Can.*, 1863, p. 102.



extension of the western parallels to the east, that the gabbro of the Northwest is the chronologic analogue of the hypersthene rock of the Adirondacks. The lithology is identical, except that various "limestones" are mingled with the hypersthene rock which have not, so far as known, any parallels in the gabbro of the Northwest. This assumed parallelism may also be set down as not sufficiently established.

It is also assumed that the Pewabic quartzite of northeastern Minnesota, with which gabbro is interbedded and which lies below the great gabbro overflow, is the equivalent of the Wausaugoning quartzite and of the Pipestone quartzite of the southwestern part of the state carrying a primordial fauna, which last is very certainly the equivalent of the Thessalon quartzite of the original Huronian. Still the Pewabic quartzite may not hold this relation to the Wausaugoning beds; the connection has not been traced; yet they seem to be similarly situated with respect to the gabbro sheet, and are not widely separated from each other.

The writer has attempted to indicate such general equivalency as has appeared to him probable, and which embraces a greater fund of concordant fact and testimony than any other scheme of chronologic succession. He may be wrong in some parts of this history, and especially in the extension of the story as made out in Minnesota to eastern states, and holds it, in large measure, as tentative at this stage of the investigation. When facts can be found out sufficient to correct it in any way, he will be glad to welcome them, for he freely admits that there are questionable steps and missing links in the history, which have to be bridged by hypothesis and nothing else. That is, however, the nature of all investigation, and especially of all attempts to formulate any general truth.

#### PROBLEMS THAT NEED FURTHER INVESTIGATION.

As already stated, as this investigation has proceeded, no sooner did we surmount the difficulties which immediately beset the first attempts than new difficulties appeared. The solution of one problem seems to serve for vantage ground to behold others in the greater distance. It will be desirable to mention some of the questions that appear at present to require further study, and further field-work. This will distinguish more exactly the status of our present knowledge, or body of truth on which we rely, from the realm of hypothesis or of unfinished work and

research, to which it will be necessary to devote the efforts of the survey at some future date.

*Eruptive and sedimentary Laurentian.* Beginning with the Laurentian, as defined above, one of the unfinished courses of study relates to the distinctions, both geographic and structural and petrographic, between the eruptive masses of syenite, or granite, and those that are supposed to have resulted from change *in situ* of the oldest sediments. This will involve the further question whether the "gneissic structure" is necessary, or even possible, in a truly eruptive rock. But first of all it will necessitate a correct definition of the term "gneissic structure."

There are three distinct ideas that have been confused under the term gneiss, or gneissic structure. No reference is made here to the use of the term gneiss as a rock species, but to the structure which is supposed to distinguish it, the proportionate amounts of the usual mineral ingredients being variable, and sometimes constituting a dark-colored, perhaps basic, rock, and at other times an acidic one. Referring only to *structure*, therefore, a rock has been said to be gneissic when *foliated*; but it is plain that there may be different kinds of foliation, (a) that lamination which consists of an undulating layered structure, the mica element not being unevenly distributed, but all the scales being parallel with the sheeting, and all the grain of the rock having a uniform structural rift which facilitates quarrying. If there be a finer lining or sheeting of the mica element the lines or sheets are not continuous far, and may be seen to fade out within a distance of a foot or two. That is to say this foliation does not indicate a profound separation of the minerals of the rock into layers or long continuous sheets. (b) A second sort of foliation is that which arises from a distinct separation of the minerals of the rock, or different proportions of the constituent minerals, into sheets or strata that continue over long distances. Such separation is indicated on the weathered surfaces by color-bands, and by petrographic differences of grain and composition. In short this foliation is plainly a modified sedimentary structure. The sheets, or layers, or strata, into which the rock is separated, are traceable over large surfaces. The crystalline condition of the grain here may be as perfect as in the last, and this constitutes the "crystalline schists;" but in many places there is seen an imperfect, or interrupted, crystallization, the various grains blending round their borders into each other, or being lost in an



indefinite matrix, or developing porphyroidally. (c) Still another structure has been styled gneissic. A massive homogeneous rock, which may have neither of the foregoing kinds of foliation, but which exhibits the micaceous or hornblendic element evenly distributed in isolated individual grains throughout the whole, yet is seen to have a uniform elongation of the separate crystals, of all kinds, in the same direction. This furnishes also a kind of rift or grain which pervades the mass, rendering it easier to break in the direction parallel with the greater diameters of the crystals than in any other, but it is essentially a massive non-foliated rock. A massive structureless granite, or syenite, is rare to see. Hence by far the greater part of the Laurentian, whether eruptive or sedimentary, is properly styled gneiss. It is obvious, however, that these three structures should not all be described by a single term.

When these structures are once sufficiently differentiated in the mind of the observer, and are carefully applied in descriptions, there will still remain to ascertain what relations they separately sustain to the supposed two sorts of Laurentian rocks, i. e. whether one or the other may be found to characterize the actually eruptive acid Laurentian, or the metamorphosed sedimentary Laurentian.

*Planes of hydro-thermal fusion, and their relation to the origin of the crystalline schists.* A second problem connected with the Laurentian, and which appears prominently in the horizon of future research, relates to the origin of the crystalline schists.

It has been stated above that there is every evidence to suppose that the eruptive epoch which introduced the Vermilion age (i. e. the crystalline schists) continued into the Kewatin (i. e. the sericitic schists and graywackes) by an unbroken and uniform succession of events and oceanic deposits. This binds the Vermilion and the Kewatin, historically, closely together. It has been said also that the mineral characters of the Vermilion fade out very slowly into those of the Kewatin, but that when fully established the change is so great that the formations have great mineralogical contrasts. In other places the crystalline schists have a very feeble development at the horizon where they would be expected to appear, and the Kewatin graywacke-like sediments pass into the Laurentian sediments through a gradual change from graywacke to gneiss—a gneiss having the second kind of foliation described above.

The crystalline schists seem to be, nearly always, as completely crystalline as the gneiss. If the origin of the basic sediments of the crystalline schists be akin to that of the sericitic sediments of the Kewatin, viz. from volcanic ejectamenta, the query quickly arises — why are they not similar in the resulting rocks? Why are the crystalline schists so uniformly composed of the same minerals as make up gneiss, though differing from gneiss in the relative amounts of those minerals and in the evident sedimentary structure, while the Kewatin, sericitic schists are only sub-crystalline and are often earthy? Is it not plausible to suppose that the crystalline schists are but a phase of the earthy Kewatin schists, due to the encroachment of hydro-thermal fusion-planes upon them? At the present time these beds all stand nearly vertical. If this fusion affected them after this verticality was attained, it may be supposed that the approach of the fusion-plane toward the surface of the earth would be nearer in some places than in others. When the fusion was accompanied by fracture more or less of the fused rock-matter would be thrust through the fissures and would appear as eruptive rock. Since there are certainly places where in the Kewatin sediments such fusion, and even such eruption, seems to have resulted from the Kewatin itself; and since in the immediate vicinity the sediments adjoining take on over a greater or less width, the characters of the crystalline schists, and at other places the crystalline schists do not appear where the Kewatin sediments exhibit that peculiar semi-crystalline condition which has been mentioned as “porphyrel,” it has appeared to the writer that very likely the crystalline schists have no constant stratigraphic place, any more than the Laurentian gneiss, and that the “crystalline” phase has been superinduced *in situ* on basic (or acid) sediments in strata of different ages, according as, after being deposited, and even after being tilted to verticality, the level of hydro-thermal fusion was able to reach them or not. Therefore, without any undulating of the actual strata in anticlinal and synclinal folds (a supposition which seems to be precluded in some places by the extensive present vertical position of all the strata), there still might result, superficially, successive belts of rocks of different kinds. The belts would express the effects of hydro-thermal fusion, perhaps on the same sort of sediments, in different degrees of intensity. Wherever erosion and denudation may have been sufficient to bring the present surface down to the level where the fusion-plane operated in its full intensity,

there we should find the present surface rock to be gneiss if the sediments were acidic, crystalline schist if the sediments were partially basic and stratiform, or eruptive rock if there were fissures through which such could and did escape. Where the surface erosion has not been sufficient to expose the upward (or the downward) undulations in the plane of perfect fusion, we find the earthy, or volcanic, or siliceous, sediments more nearly in their original condition.

*Date of upheaval of the crystalline schists.* Intimately connected with the question of the origin of the crystalline schists is the question of their date relative to the epoch of their upheaval, and the further, or prior, question as to the cause of the very general and extensive verticality of all the sedimentary strata that precede the Taconic (Huronian).

*Nature and origin of jaspilyte.* Attention has been called to some points in the investigation of this question which need further examination.

*What is the "muscovado rock?"* and, particularly, does it represent a sedimentary formation younger than the Kawishiwin and older than the Taconic.

#### COMPARISON OF THESE RESULTS WITH THOSE REACHED ELSEWHERE.

Following is a tabulated statement of the general stratigraphy supposed to exist in Minnesota, according to the foregoing sketch.

<i>Calciferous.</i> Magnesian limestones and sandstones.....	} Dikelocephalus horizon.
<i>St. Croix.</i> Sandstones and shales.....	

#### Overlap unconformity. \_\_\_\_\_

<i>Potsdam.</i> Quartzite, gabbro, red granite and Kewenawan.....	Paradoxides horizon.
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#### Overlap unconformity. \_\_\_\_\_

<i>Taconic.</i> Black and gray slates and quartzites, iron ore, (Huronian, Anemike).....	Olenellus horizon.
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#### Overlap unconformity. \_\_\_\_\_

<i>Kewatin</i> (including the Kawishiwin or greenstone belt, with its jaspilyte), Sericite schists and graywackes.....	} Archean.
<i>Vermilion</i> (Coutchiching), crystalline schists	

#### Eruptive unconformity. \_\_\_\_\_

<i>Laurentian.</i> Gneiss.....	
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Comparing this with the results reached by the late Wisconsin survey, it is found to differ considerably from the table of formations published by Prof. Irving, in the third volume of the final report of that survey, pp. 92 to 211. Prof. Irving describes the Laurentian as composed of "dark-colored and altered (chloritic) hornblende-gneisses and pink quartzose granites." These he considers very evidently originally clastic rocks, without any recognizable eruptive portions, and to lie unconformably below the Huronian. The last he divides into twenty-one parts, in the same manner as major Brooks, in his report on the geology of Michigan. The aggregate thickness is supposed to be about 12,800 feet. But in this thickness he includes all the strata from his Laurentian to his Kewenawan, viz. in descending order:

- XXI. Mica schist, with intrusive granite.
- XX. Probably mica schist, like XXI.
- XIX. Greenstone schist.
- XVIII to XV. Alternations of black mica-slate and dark gray quartzite, or quartz schist.
- XIV. Black mica-slate. This and the last are carbonaceous.
- XIII. Chloritic diorite.
- XII. Black magnetitic mica-slate.
- XI. Probably mica-slates.
- X. Mica-slate.
- IX. Chlorite diorite.
- VIII. Probably mica-slate, like VII.
- VII. Mica-slate.
- VI. "Peculiar hornblende rock," containing also quartz, apatite, milky orthoclase and rare plagioclase; also biotite, cut by pinkish, coarse, granite veins.
- V. Black feldspathic slate, carbonaceous.
- IV. The magnetic belt; made up of banded magnetitic quartzite, magnetitic quartzite, magnetitic quartz-slate, actinolitic magnetitic quartz-slate, arenaceous to compact and flaky quartzite, thin-laminated, soft, black, magnetitic slate, hematitic quartzite, garnetiferous actinolite-schist or eclogite schist, and diorite.
- III. Siliceous slate or schist, a light-gray, soft, mica-schist, sometimes a fine quartzite.
- II. Arenaceous quartzite.
- I. Crystalline limestone.

For greater details respecting these parts the reader is referred to Vol. III, Wisconsin geological report, pp. 106-166.

The Kewenawan system Prof. Irving here describes as consisting of a "lower division, embracing chiefly great flows of gabbro, diabase, and melaphyr, and an upper division composed chiefly of reddish feldspathic sandstone, subordinate to which are heavy beds of boulder-conglomerate, indurated gray and brown quartzless sandstone and black shale." Among its eruptive rocks he includes gabbro, diabase and diabase amygdaloid, melaphyr, granite and porphyry, the last being possibly elastic. Among its fragmental he notes boulder-conglomerate, black and gray shales, gray and brown quartzless sandstone and red sandstone and shale.

Unconformable over the last he places the light-colored "lake Superior or Potsdam sandstone," which he considers either the "equivalent or downward extension of the Potsdam sandstone series of the Mississippi valley."

It is evident that in this description there is included nothing that answers to the Kewatin and Kawishiwin. It appears that a feeble representation of the crystalline schists is noted in connection with the Laurentian, as "dark hornblende gneisses." Essentially all of these parts, from No. I to No. XX inclusive, are the Animike of northeastern Minnesota, the real Huronian without the overlying Thessalon quartzite. According to observations already recorded this overlying unconformable quartzite is in northern Minnesota interbedded with gabbro sheets, and the great gabbro flood lies on the lower portions of it. It is a natural inference that in an epoch of successive volcanic eruption like that which followed the gabbro outflow, a quartzite would locally lose its typical character, and would be converted to feldspathic sandstones, conglomerates and shales, and that these would be interbedded with the eruptive sheets. Such seems to have been the case in northern Wisconsin and in northeastern Minnesota within the area affected by this remarkable series of eruptions. But in central Wisconsin, as well as in southern Minnesota, and in S. Dakota, the normal conditions again prevailed, and a similar quartzite is found to exist, repeating the sedimentary succession that obtains in the area of the original Huronian.

The peculiar "mica schists" cut by intrusive granite, represented to overlie all the rest of the Huronian, seem not to have been identified in Minnesota. There is, in connection with the



gabbro, in northeastern Minnesota a large amount of red granite, passing to felsyte such as that seen at the *Great Palisades*, on the north shore of lake Superior. It is possible that in connection with this granite will yet be found some micaceous schists answering to these in Wisconsin, the result of metamorphism from some of the Animike beds.

Prof. Charles E. Wright and major T. B. Brooks, who report, in the same volume, on some of the crystalline rocks of Wisconsin, present substantially the same classification. But they distinctly include the "crystalline schists" in the Laurentian. Brooks, who made out this order first in the Marquette region, and gave the parts similar numerical designations, groups them in three principal parts, viz.:

*Upper Huronian, Beds XIV to XX.*

Mica slates, mica schists, granites and gneisses.

*Middle Huronian, Beds VIII to XIII.*

Quartzites, clay slates and obscure soft schists.

*Lower Huronian, Beds I to VII.*

Quartzite, marble, iron ore, novaculite.

Brook's stratigraphic scheme is subject to criticism, and is ambiguous and certainly incomplete, although for a pioneer attempt to set the stratigraphy of the region of Marquette into a semblance of chronological succession it deserves great praise, for it supplies the first general classification and gives form to a tangled mass of variant and unfinished observations and isolated facts that had been published before. Since the examinations made by Brooks the whole country has been much cleared up, many new openings have been made and the geology is much easier to ascertain with certainty than ever before. Dr. C. Rominger, in a later survey, was aided by some of these advantages, and in some instances he was enabled to correct the stratigraphic scheme of major Brooks. His report, however, is, as it professes to be, mainly a description of facts, without much effort to decipher the stratigraphy.

Dr. Rominger hesitated about placing the granitic rocks of the Marquette district as the parallel of the Laurentian of Canada, although he regards the rest of the series, with some noteworthy differences, as the Huronian. He rejects the twenty subdivisions made by Brooks, as altogether too numerous and somewhat

vague, and some of them he omits from the succession, regarding them as intrusive masses belonging really to lower horizons. The two quartzite members, of Brooks, he considers but one. With slight exceptions Dr. Rominger's descriptions and classification are in accord with the general stratigraphy and all the geology of the Northwest as now held by the writer. Those exceptions consist, principally, in dividing the strata concerned into two distinct formations, separated by a plane of unconformity which exists everywhere and is observable (and has also been mentioned many times by him), in the iron regions of both Minnesota and Michigan. Brooks paid but very little attention to the rocks embraced by Rominger in his serpentine and dioritic groups. But these constitute, in accordance with the conclusions of this report, the basement floor on which the true iron-bearing formation makes an unconformable overlap succession, and are the southern representatives of the sericitic and chloritic schists and graywackes of the Kewatin. Another important difference concerns the great quartzite of the Marquette region. Dr. Rominger considers it a constituent part of the conformable strata of the Huronian. I think sufficient evidence exists for removing it from the system that embraces the ore beds, and placing it as an unconformable overlying stratum, the equivalent, nevertheless, of the great upper quartzite member of the original Huronian. Again, the arenaceous slate group, and the iron group, appear to the writer to be, if not identical, very closely associated members of the grand series, and not worthy of separate designation. One may overlies the other, in general, but they probably graduate into each other lithologically and stratigraphically.

In making comparisons, however, the most interesting are found to subsist between this work and that of Mr. A. C. Lawson, of the Canadian survey. In the examination of the geology of the Lake of the Woods Mr. Lawson encountered a series of rocks, which, while included by his predecessors in the Huronian, differed markedly from the descriptions of the original rocks of the Huronian as published by the Canadian survey, and he gave them the name which is used by the Minnesota survey,—the "Keewatin." These he inferred to lie conformably below the Animike, found further southeast, and they were subsequently traced continuously to the north side of Gunflint lake, and found to become there the very same strata which the Minnesota survey had already described as unconformable below the Ani-

Mike, but which, however, were not fully wrought out by the Minnesota survey, nor identified as different from the Huronian. In the later prosecution of the work in Minnesota this widespread unconformity has been fully recognized, and the separateness of the strata above it from those below has been established beyond all question.

A still further interesting parallel between the work of the Minnesota survey and that of Mr. Lawson consists in the separation of the crystalline schists from the Kewatin, under a distinct name, and the recognition of some (at least local) unconformity due to eruptive action between them and the Laurentian gneiss. Mr. Lawson gave them the name Couthiching, not including in them the basic eruptive rock associated at this horizon, and this survey, about the same time applied to them the name Vermilion, but included in them all the eruptive basic rock which appeared to grade off into dark and hornblendic schists and to micaceous schists. By Mr. Lawson this eruptive belt is considered as of later date than the schists, and perhaps as late as the Kewenawan, but by the writer it is regarded, so far as seen in Minnesota, as having actually preceded the crystalline schists, and really to be the most obtrusive agent in the introduction of the lithology that characterizes the crystalline schists. The principal eruptive rock was the acid Laurentian gneiss, according to Lawson, but according to this survey it was the basic doleryte.

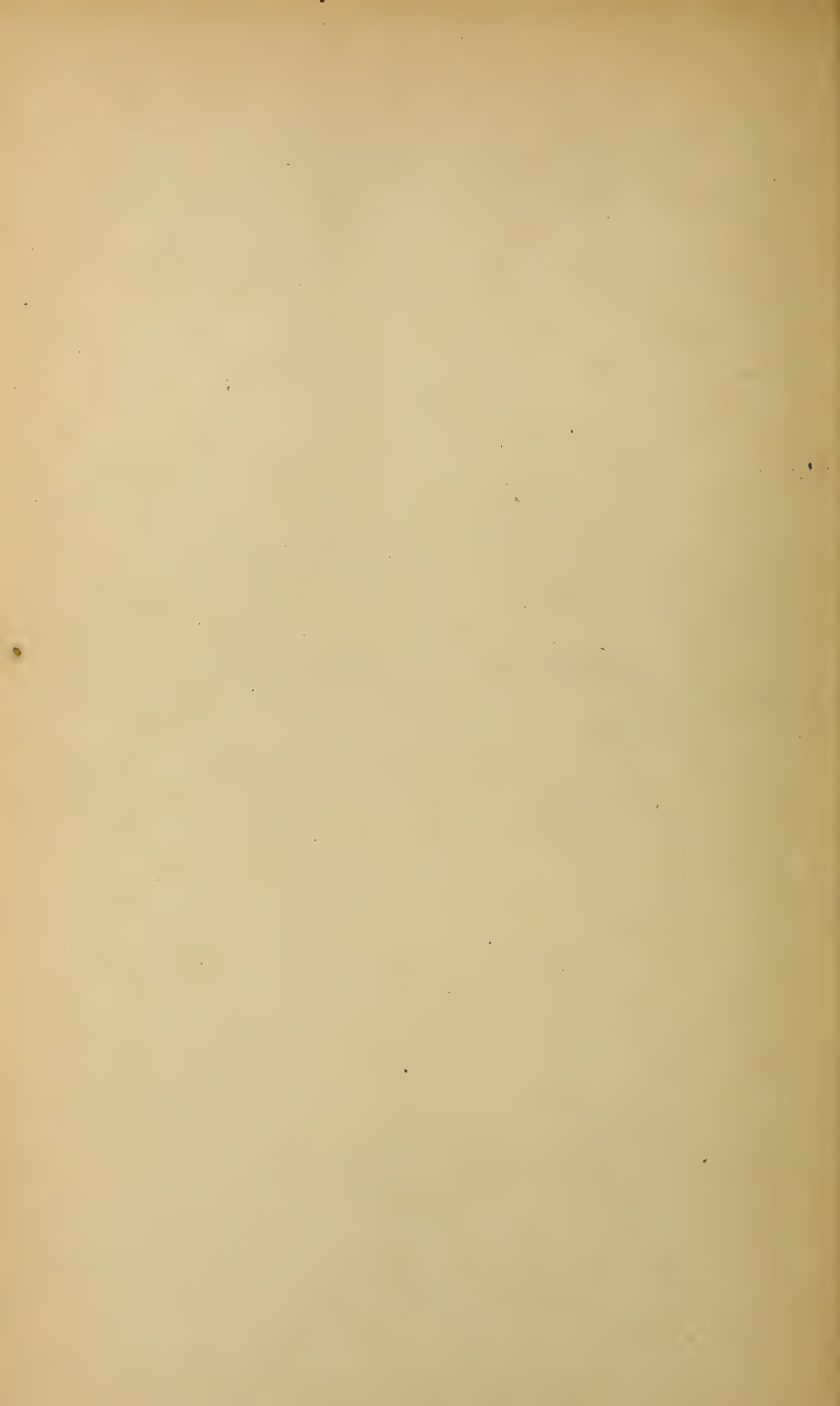
There are minor differences, such as that touching the eruptive nature of gneisses, the later date of the Laurentian, the character of the thin, interleaved, gneissic strata between thin sheets of mica schists, sometimes reaching 100 or more alternations, and others, which will furnish subjects for future research. But the general concord, in the main results, between the conclusions of Mr. Lawson, and those expressed already, in this report, on the succession of the principal steps in Archean stratigraphy, is certainly a cause of satisfaction, and gives corroborative evidence of the correctness of the conclusions arrived at.

It is not necessary to make comparisons between these results and those of New England geologists. There is not sufficient evidence yet that the New England crystalline rocks can be assigned unexceptionably to the Archean. It has not escaped observation, however, that there are many general concordances. Especially is this true of the report on the New Hampshire crystalline rocks by Prof. C. H. Hitchcock. It is believed by

the writer that the same strata extend, with characteristic lithology, through the Archean terranes of New England, and that they will be identified by and by with all the necessary evidence.

REPORT OF H. V. WINCHELL.





## III.

REPORT OF FIELD OBSERVATIONS MADE DURING  
THE SEASON OF 1888, IN THE IRON REGIONS OF  
MINNESOTA.

*By H. V. Winchell.*

The object of this report is simply to place on record the facts observed and noted during the summer of 1888 regarding the geology of the region east of Tower, paying particular attention to the iron ore deposits. During the months of July, August, September and October an attempt was made to visit all the outcrops of iron ore east and south of Ely, for the purpose of making notes, collecting specimens\* and learning the relation of the ore to the rocks of the region, as well as its extent and probable value. In many cases reported by explorers and so-called "experts" it was found that their accounts either exaggerated greatly the amount of iron ore to be found at any specified place, or else that there was no iron ore there at all—nothing but iron-rusted rocks or beds of heavy dark diorite, or even no signs of iron at all.

*Region traversed.* The first month was spent in examining the magnetic ore belt which lies along the north edge of the gabbro and the south side of the Giant's range. A party consisting of the writer and Mr. W. D. Willard, of the State University, with Indian packers, went overland from Birch lake to the Duluth and Iron Range railroad along the Giant's range, making frequent cross-sections of the rocks and examining all the workings in the magnetite prosecuted there in past years. After returning to Birch lake the same belt of ore was followed northeastwardly into Twp. 63-10 on the Kawishiwi river.

During the remainder of the season the party led by Mr. Uly. S. Grant, assisted by Mr. A. D. Meeds was also engaged on the investigation of the iron ores. A trip southward to lake Superior was taken through an unexplored part of the country, and the various lakes along the route were examined. The parties

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\*The specimens collected by H. V. Winchell are numbered in pink shellac and alcohol, and have the letter H following the numbers.

then proceeded to Gunflint lake and worked for a month south-westwardly. Mr. Grant's party made two or three extended trips to the south for the purpose of visiting reported iron locations, reaching Brule lake and lake Alice and making notes on the geology of their shores. The other party followed the northern edge of the gabbro to connect with the observations made from Birch lake northeastward, closing by examining some of the jasper and ore beds in the vicinity of Snowbank lake.

All the outcrops of magnetic ore that could be learned of were visited,—with the exception of one or two remote places difficult of access and which were in all probability in the gabbro. Also a great many exposures of hematite were examined and many new facts obtained regarding its occurrence and relations to the surrounding rocks.

The importance assigned by many of the explorers to a small bed of jasper, or jasperoid rock in the crystalline or earthy schists, is often amusing. On the strength of such a discovery they will recommend the purchase of extensive tracts of land and the operation of a diamond drill on the spot or in the vicinity; being certain that the presence of the jasper—not always even *in situ*—is a sure indication of the proximity of a valuable body of ore. They do not seem to realize that jasper is not iron ore and that a mountain of jasper is no sign, in itself, of iron ore any more than of any other mineral.

Another erroneous idea which has gained prevalence is that a bed of ore is sure to improve the farther it is followed toward the center of the earth. The contrary is often true, and it is evident that while the grade of the ore *may* improve and the quantity of it *may* increase with the depth of a shaft, yet there is no reason to expect such a thing. Therefore it is a poor investment to buy land—or rock—which contains a small per cent of iron on top, and base hopes of a paying investment on the expectation of finding it to be high grade ore 50 or 100 feet from the surface.

It is surprising what credit is given by capitalists to any man, who, with no knowledge whatever of mineralogy or geology, and therefore no judge of the probability of finding ore in a certain locality, has, however, the assurance to tell them that there is iron in such and such a place if they will only put in a shaft and “open up the mine.” On the strength of such recommendations as these thousands of acres of land have been bought at a high price, which are utterly destitute of iron ore and are,

perhaps, nothing but cedar swamps or hills of bare rock; and in many places there are abandoned pits and machinery where not only shafts but fortunes have been sunk in hasty and profitless prospecting and blasting. The machinery and supplies have been "packed" thither at great expense, and men employed at high wages to dig for iron when a person who is at all acquainted with the geology of the region would have told in a short time that there was no use whatever in spending a cent. In two or three places shafts were seen sunk in greenstone where there was not the slightest indication of iron nor even a bit of jasper to mislead the anxious searcher for wealth; all because it was "on the iron range."

Such hasty, ill-advised proceedings always serve to bring a region, no matter how valuable in reality, into disrepute, and to weaken the confidence of capitalists all over the country who attribute these losses and failures to the wrong cause and are, therefore, deterred from investing their own capital in the really valuable and profitable localities.

But however much money may have been hopelessly squandered in the search for iron in barren regions, yet a great deal has been employed in the development of new and rich iron deposits during the past year. The D. & I. R. R. has been extended 25 miles to Ely, south of Long lake, from which place were shipped 1,200 tons of ore daily for about two months of last season. This ore all came from the Chandler mine, which has put in a fine plant of machinery and hoisting apparatus and will be ready for much larger shipments next year. The Pioneer and Zenith mines will also be in a condition to produce a large amount of high grade ore in 1889. These mines are located east of the Chandler at Ely. At several other places in the same vicinity large crews of men have been at work uncovering and opening up promising deposits of iron ore.

There has also been some attention paid to the Animike magnetite, and in several places around Birch lake shafts and drillings have been made. None of these, however, seem to have met with success, as the ore is not found in paying quantity.

More extensive ore-beds have been found west of Gunflint lake in Twp. 65-4 than elsewhere in this formation. Work will be commenced in this region as soon as railroad facilities can be obtained. In the following notes each of these outcrops and workings is described in detail.

*Principal varieties of iron ore.* It is well known by those



familiar with the geology of northeastern Minnesota that there are three principal kinds of iron ore. These are found in connection with three different formations. The first kind is red hematite which is found interbedded with jasper in folded and crumpled beds that occur in what has been called the Keewatin formation. This is the ore which has been mined so extensively and is in such demand by the manufacturers of steel using the Bessemer process. Many analyses have been published heretofore. The second kind is a fine-grained glistening magnetite which is generally found in nearly horizontal beds of quartzite supposed to be a part of the Huronian formation. This is the ore which was first worked before the Vermilion lake ore had been thoroughly tested or investigated. It has not been found in quantities sufficient to pay for mining until quite recently when large beds of it, west of Gunflint lake, have been penetrated by diamond drills. This is a high grade ore and contains no titanium. An analysis of a specimen from N. E.  $\frac{1}{4}$  sec. 23, 60-13 gave the following, according to Mr. C. F. Sidener:

	Per cent.
Silica, Si O <sub>2</sub> .....	11.89
Alumina, Al <sub>2</sub> O <sub>3</sub> .....	.34
Magnetic oxide of iron, Fe <sub>3</sub> O <sub>4</sub> .....	87.00
Lime, CaO.....	.20
Magnesia, MgO.....	.80
Titanium, Ti.....	None
Phosphorus, P.....	.056
Sulphur, S.....	Traces
	<hr/> 100.246
Metallic iron, Fe.....	63.07

The third variety of iron ore is also magnetite. It is coarse and has a duller lustre than the Animike ore and is not so strongly magnetic. It is found in many places in the gabbro, which sometimes contains so much of it that it seems to be pure magnetite. This ore almost always contains a large amount of titanitic acid which ruins it for merchantable ore, with only present methods of reduction. Immense deposits of this titaniferous ore are found, and most of them have been purchased from the U. S. government in the hope of being able to conduct remunerative mining operations. When a method for reducing titaniferous ores cheaply is discovered such iron ore will be valuable; but until then it is worthless.



An analysis of a sample of this ore from sec. 36, 63-10 as reported by Mr. C. F. Sidener is:

	Per cent.
Silica, $\text{SiO}_2$ .....	11.37
Alumina, $\text{Al}_2\text{O}_3$ .....	1.32
Magnetic oxide of iron, $\text{Fe}_3\text{O}_4$ .....	53.33
Protoxide of iron, $\text{FeO}$ .....	14.42
Oxide of titanium, $\text{TiO}_2$ .....	16.03
Lime, $\text{CaO}$ .....	.10
Magnesia, $\text{MgO}$ .....	2.73
Phosphorus, P.....	.01
Sulphur, S.....	Traces
	<hr/>
	99.31
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Metallic iron, Fe.....	49.40

These are the principal kinds of ore. But there are various modifications and combinations of them which would not come strictly under any one of the three heads. There are, for instance, magnetite beds in the Keewatin; sometimes mixed with hematite; sometimes all magnetite. On the other hand there is hematite and even limonite in the Animike; and there are extensive fragments of the Animike formation inclosed in the gabbro which thus appears, on a hasty examination, to contain non-titaniferous, fine-grained magnetite. The gabbro is thus found to be the only rock which always contains the same kind of iron ore—(titaniferous ?) magnetite.

#### GIANT'S RANGE.

The first work of the season was done, as above stated, on the syenite range south and southwest of Birch lake. The trail which leads from the lake to the Duluth and Iron Range R. R. starts from the sandy bay in sec. 32, 61-12. It runs nearly south for two or three miles after becoming established. It is a poor trail but grows better as the railroad is approached. South from Birch lake the country rises rapidly, and the aneroid indicated a height of 225 feet at a point a mile and a half from the lake. Ridges composed of drift containing syenite boulders are crossed until in the S. W.  $\frac{1}{4}$  sec. 8, 60-12 a ridge of massive syenite rises quite suddenly over 200 feet more. This is the Giants' range, 480 feet by aneroid above Birch lake. Before reaching the ridge some huge boulders of syenite and diorite are seen. This ridge is here composed of coarse reddish syenite containing

much blue, chalcedonic quartz in grains one-quarter of an inch in diameter. The pink orthoclase is frequently porphyritic. The hornblende is somewhat decayed in all the specimens observed, probably because they came from near the weathered surface. Samples of this rock are 357.

The drift on the north side of the ridge is reddish and contains many boulders. On the south side of the syenite ridge the land is from 100 to 150 feet lower than the summit of the ridge. Some immense boulders are seen.

At  $\frac{1}{4}$  mile south of the S. E. corner sec. 7, 60-12 there are seen numerous angular fragments of olivinitic magnetite projecting through the moss. These pieces contain thin strata of good iron ore; they seem to lie just on top of the solid rock and to have been moved from their original place by the action of frost. Samples are numbered 358.

The trail leads through a swamp for the next half mile. Just north of the small creek which crosses the line between secs. 17 and 18, 60-12 there is an exposure of solid rock. It lies in strata which dip S. S.E.  $10^{\circ}$ - $12^{\circ}$ . The rock is olivinitic and contains considerable magnetite both as a constituent of the rock itself and in veins which coincide nearly with the direction of the bedding. This rock looks much like a quartzite but contains a large proportion of olivine. Samples from here—S. W.  $\frac{1}{4}$ , S. W.  $\frac{1}{4}$  sec. 17, 60-12—are 359. The rock is fine-grained and greenish; it is overlain by a very light covering of drift.

Rock similar to the last is exposed in places as far south as the E. quarter post sec. 19, 60-12. The needle dips about N.  $50^{\circ}$  over this entire distance.

In the N. E. corner of sec. 19, 60-12 is a shaft about ten feet deep. Indian John Beargrease says it was dug about 14 years ago by Peter Mitchell. After penetrating about five feet of drift the bed rock is encountered. It is the same greenish, olivinitic quartzite containing magnetite. The needle dips N.  $57^{\circ}$ . Specimens from here are 360. Some of this rock is slaty; 361.

Another shaft has been made in N. W.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 19, 60-12. The rock here is quite similar to the last; some of it is very thin-bedded. A sample from this shaft showing fine stratification is 362. There is very little good ore visible here, though the needle dips  $90^{\circ}$ .

A smoothed, black exposure of ferruginous quartzite several acres in extent, appears on the surface of the ground in the N. W.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 19, 60-12. The rock and magnetite both

weather shiny black, and the metallic lustre gives one the idea that he is standing on a hill of pure iron. Sample of good ore from here is 363.

In the N. W.  $\frac{1}{4}$  sec. 19, 60-12 there is a ridge composed of syenite boulders three to ten feet in diameter. This ridge is 50 feet high and extends for half a mile at least running nearly east and west. It is wonderful to see these immense rounded masses of syenite (one boulder of quartzite was seen among them) piled up on top of each other with crevices ten or fifteen feet deep between them. No rock is seen in the woods on the south side of this ridge, with the exception of a few boulders. This moraine seems to lie just south of the magnetic quartzite.

*Iron lake.* This small lake is one of the few bodies of water that lie south of the summit of the Giant's range and yet nearly as elevated as the range. It is situated in secs. 13, 14, 23 and 24, 60-13. Its shore is surrounded by boulders, mostly syenite, from the ridge north of the lake. There are also, however, many angular pieces of magnetitic quartzite. This rock contains less olivine here than a few miles further east. A few boulders of a quartz conglomerate with a green matrix were seen on the east side of the lake in the N. W.  $\frac{1}{4}$  sec. 24, 60-13, No. 364.

A short distance east of the lake, in the N. W.  $\frac{1}{4}$  sec. 24, 60-13 the bed rock was exposed in the hillside by a windfall. It is the usual black, magnetitic rock lying in nearly horizontal strata. Some of the rock here is reddish and jaspery; there is also a conglomeritic aspect in places. Sometimes the rock is slaty in thin, black, parallel strata that are quite straight for a rod or more. Again the iron seems to be in veins which do not conform strictly to the general planes of stratification. The following cut is from the perpendicular face of a ledge in N. W.  $\frac{1}{4}$  sec. 24, 60-13.



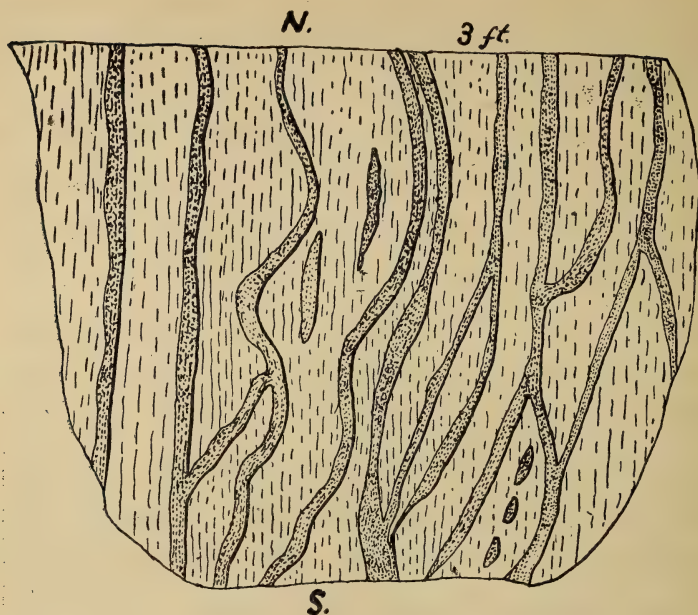


Fig. 1.—Veins of magnetite in greenish Animike rock.

A short distance N. W. or N. of last the ledge is exposed in a perpendicular wall 8 feet high and a couple of rods long. It is in thick black beds that have a high specific gravity and are crystalline with a dark mineral that may be hornblende, No. 365.

Near the north end of Iron lake, in S. W.  $\frac{1}{4}$  sec. 13, 60-13, the magnetitic quartzite undergoes a queer metamorphosis. It still lies in nearly horizontal beds; but it gradually becomes less highly charged with magnetite, acquires feldspathic and quartzose materials and finally is changed to a regular, reddish crystalline rock which is the syenite of the Giant's range. The lowest beds are the most perfectly crystalline. Before the transition becomes complete the Animike rock appears to be feldspathic in spots as if there were boulders of syenite in it, but lower down the beds become wholly syenitic. The quartz grains that are first seen in the greenish Animike rock have the same bluish translucent appearance as those in the syenite which lies just north. This change is illustrated by specimens numbered 366.

The quartz grains are seen before the feldspar. There are also

portions of the Animike which are conglomeritic and are the same as the peculiar conglomerate, 364. A sample which contains part of a felsitic boulder is 367. The dip needle is but slightly affected here.

North of Iron lake the land does not rise suddenly; but there is a gradual upward slope for about half a mile when the summit of the range is reached and there is an abrupt descent of 200 feet or more. Syenite containing a little biotite is seen in the bluff on the north side of the range. One sample from the N. E.  $\frac{1}{4}$  sec. 14, 60-13 is 368.

There are no exposures of solid rock on the N. W. side of Iron lake. On the S. W. side in the N. E.  $\frac{1}{4}$  sec. 23, 60-13 there is a ledge of black magnetic rock, 369. It presents the usual characteristic aspects of this formation; lying in nearly horizontal strata and containing more or less magnetite which gives a dark color to the rock.

Iron lake is nearly as elevated as the summit of the Giant's range. The black rock on the north side of the lake is close above the syenite; and the change which was observed to have taken place must be mainly in the nature of a fragmental transition rather than a metamorphic one, i. e., the gradual increase within the Animike of the feldspathic and quartzose materials must be due to the fact that there was more or less debris derived from the crystalline ridge on the north which was covered up by the Animike deposits and by subsequent metamorphism incorporated closely into them. That this metamorphosing process was in the nature of a slow rearrangement and reuniting of the mineral constituents rather than of a violent and more sudden disturbance seems to be indicated by the comparatively undisturbed position of the strata.

Mr. Willard went south from the lake through the S. W.  $\frac{1}{4}$  sec. 23, and the W.  $\frac{1}{2}$  sec. 26, 60-13. He reports fragments and low outcrops of the dark iron ore rock all the way to the swamp in the N. W.  $\frac{1}{4}$  sec. 35, 60-13. Sample from that locality is 370. It is tough, black, heavy rock and contains probably 45 per cent (?) of iron.

The percentage of iron in the rock appears to grow less going westward from Dunka river; toward the northern edge and westward there is also less olivine and more quartz. Fragments of red jasper are seen all along the trail. These may have been transported from north of the Giant's range, although red jasper and quartzite have been seen in the Animike formation in this



region. Pieces of porphyritic rock that look as if they belong to the same formation near its contact with the syenite are also seen along the trail.

Some pure quartzite containing, however, a small amount of magnetite, is found in angular fragments. A sample of reddish-gray quartzite from N. W.  $\frac{1}{4}$  sec. 32, 60-13 is 371.

The bed rock is seen to be just beneath the moss and light drift covering for two or three miles in sections 28, 32 and 31, 60-13. Ridges composed of granite and syenite boulders are seen at intervals, and evidently form part of a morainic system. The drift deposits become thicker toward the west.

Just south of the trail in S. W.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 32, 60-13 is a large exposure of the semi-crystalline fragmental rock which intervenes between the regular Animike and the syenite, and grades into the latter. This rock is exposed here to a depth of 12 or 15 feet. At the top it contains considerable green, uncrystallized material, and the feldspar crystals are not so well formed as farther down where there is less of the green matter. There is an indistinct gneissic structure which seems to lie nearly horizontal; there is also a coarse schistosity which runs N. E. and S. W. At the top is a conglomeritic layer which contains pebbles of quartz and some of greenish rock, some of them two inches long, but mostly less than an inch in length, No. 372.

The rock at the bottom of this exposure is almost wholly crystalline with the usual constituents of syenite. The hornblende crystals are the last to be developed; large crystals of feldspar appear in the green matrix before it begins to show any other signs of crystallization. These feldspar crystals are orthoclase and are sometimes blood-red.

Peter Mitchell uncovered the iron ore beds in several places in the S. W.  $\frac{1}{4}$  sec. 32, 60-13. Some of the rock thus exposed is quite slaty, 373. The shaft in the S. E.  $\frac{1}{4}$  S. W.  $\frac{1}{4}$  sec. 32, 60-13 is about 8 feet deep. It penetrates solid, black rock containing magnetite in grains and poorly defined layers or bands all through it. It is poor ore. On the surface a short distance northwest of the shaft the rock is more unevenly bedded and consists of thin veins of black ore in a gray rock. No. 374. The needle dips at all angles in a very small radius here. Glaciation is about N. N. E. Some of the rock is fine and jaspery with a reddish tinge, No. 374 A.

This is in a low ridge trending N. E. and S. W. or thereabouts. Sometimes similar ridges are seen made of boulders,

and sometimes of syenite. In the S. W.  $\frac{1}{4}$  sec. 31, 60-13 is a small ridge composed of iron ore rock. It has been broken off and the land east and north is lower. The east face of the ledge is smooth and vertical and can be followed for half a mile on the north side of the trail. The grayish, quartzose rock lies in nearly horizontal beds, all of which contain magnetite. This rock always weathers shiny, smooth and black and has the appearance of solid iron. There is very little pure ore in these beds. A sample from the S. W.  $\frac{1}{4}$  sec. 31, 60-13 showing the weathered surface is 375.

There is a large exposure of the Animike rock and a shaft dug down about ten feet by the side of the vertical exposed wall of rock in the N. E.  $\frac{1}{4}$  sec. 11, 59-14. There is here seen a thickness of 15 feet of the usual dark-colored rock. It is, however, reddish in streaks and contains a little hematite with the magnetite. At the bottom of the shaft, particularly, the rock is soft and hematitic. At the surface of the ground the rock is harder and seems to be composed of reddish quartz in fine grains strongly resembling the "chalcedonic" quartz of Vermilion lake, 376. Hematitic rock from the base of the shaft is 376 A. There are thin bands of good ore contained in the rock here; but there is not enough to pay for working. This ledge is on the west side of a ridge which trends to the northwest. The strata have a little higher dip than usual toward the southeast. Some of the ore is seen to be further altered to limonite.

In the N. W.  $\frac{1}{4}$  sec. 11, 59-14 is a small outcrop of Keewatin rock.\* It lies in vertical beds striking N. 80° E. Sample is 377. In the S. E.  $\frac{1}{4}$  of the same section and particularly in the S. E. "forty" there is a great deal of this rock. It rises in a ridge 15 feet above a cedar swamp. It is feldspathic or felsitic and stands in vertical strata having the usual strike for this formation. Samples are 378.

Prof. A. H. Chester, in the Eleventh Annual Report Geology of Minnesota, p. 156, speaks of hematite boulders in a layer of black sand, which he observed at the bottom of a shaft 15 feet deep in Animike, a short distance north of here. Perhaps they were on top of the Keewatin and were covered up by the Animike sediments.

The Animike beds appear to be considerably broken in this region. Several very large masses of strata were seen that were

\* This is believed to be the first observation reported of the existence of the green schists of this formation south of the Giant's range.

in horizontal position and evidently but slightly disturbed from their original position. Some of them are on the hill above the Keewatin and only about 200 feet away from exposures of it in the S. E.  $\frac{1}{4}$  sec. 11, 59-14. There seems to be no reason to doubt that the black iron ore rock lies horizontally and unconformably on the upturned edges of the Keewatin. We dug a shaft by the side of a large, flat-lying mass of Animike here. It was not proven to be certainly *in situ*; but had evidently been but slightly disturbed. In this same section in various other places Animike in place is found lying above exposures of Keewatin quite near; but no actual contact was seen.

There is another shaft in the iron ore rock in the N. W.  $\frac{1}{4}$  sec. 14, 59-14. It lies nearly horizontal and the rock has the usual gray, arenaceous, magnetitic appearance. It is glaciated on the surface but the direction could not be taken owing to the magnetic disturbance. One sample from here is 379.

The black slates and quartzites in sec. 22, 59-14 do not seem to be so magnetitic, but contain veins or bands of blackish quartz or jasper. This jasper is granular and upon being pounded it crumbles and displays many white grains. The rest of the rock is grayish and is penetrated by fine needle-shaped crystals of hornblende (?) No. 380.

In the S. E.  $\frac{1}{4}$  sec. 17, 59-14 there is an outcrop of the schist which is supposed to be Keewatin. It is in vertical beds which strike N.  $75^{\circ}$ —N.  $80^{\circ}$  E. It is dark gray and soft but siliceous and sericitic, 381. This is only about one mile south of Hinsdale and is remarkably close to the syenite ridge which rises 150 feet or more higher, a mile north of this exposure. The syenite appears only half a mile north of here. The dip of the schists is vertical or at a high angle to the south.

The rock which forms the highest part of the Giant's range at Hinsdale is syenite which frequently has a distinct vertical gneissic structure. This syenite is reddish near the surface, but is gray about 30 feet below. It contains porphyritic crystals of pink orthoclase, which become deep red in places. There are lenticular masses of dark, hornblendic rock inclosed in this syenite at all depths. Some of these inclusions are five or six feet in diameter. They are always elongated perpendicularly and consist generally mainly of hornblende, 383.

A few intrusions of fine gray granite and pink granulyte are seen to penetrate the syenite. Epidote colors the rock in the proximity of veins and faults or fractures. Quartz and feldspar veins of limited extent are not uncommon.



The rock is a handsome one for ornamental purposes, and columns or blocks of any required dimension quite devoid of flaws or cracks can be obtained. It has been quarried for the manufacture of paving stones. It is also being employed in the erection of the Round house of the D. and I. R. R. at Two Harbors. Twenty-five samples of this rock were obtained, 382. Glaciation is very fine on top of the ridge, N. 22° E. The summit of the range is 120 feet by aneroid above the station at Hinsdale.

North of Hinsdale there is a rapid descent in the level of the country. At one mile and a quarter from the station is a low outcrop of syenite. It is quite similar to that in the ridge. It outcrops again at 2 miles and still again at about 3 miles north of Hinsdale station. At the last place it is red and dark and the hornblende is decayed. Small geodes of quartz and calcite crystals are seen in it here. One sample is No. 385. The level here is 180 feet below the top of the ridge at Hinsdale. There is considerable drift mixed with numerous boulders of syenite at this place and all along back to the ridge.

The last syenite seen on the railroad north from Hinsdale is about five miles from the summit of the Giant's range. It is reddish and lies in low outcrops. For the next mile or two the country is low, flat and swampy. Then come knolls and ridges of Keewatin dipping about N. 75°. The dip is lower than on the south side of the ridge or at Tower. Veins of calcite are noticed in the rock.

It is noticeable that no Animike either in place or as boulders is seen north of the Giant's range. The ridge of syenite is about six miles wide from north to south where the railroad crosses it.

John Mallmann in charge of a crew of 25 men was at work in sec. 29, 59-14 sinking shafts through the drift and down to the underlying rock in search of iron ore. He finds the rock to contain both hematite and magnetite. Some of it is colored quite red by sesquioxide of iron. At depths below the surface varying from 15 to 40 feet the bed rock is encountered. It consists of thin strata of grayish rock which might be termed ferruginous quartzite, but it is not pure quartz and iron ore. Some of it has an indistinct conglomeritic appearance, the pebbles being fine, grayish or greenish or sometimes hematitic. The beds are not as a rule more than 6 or 8 inches thick and have a low dip to the south or southeast. The syenite is said to

lie about  $\frac{1}{4}$  mile north of here. Much of the hematite found in these shafts shows a further alteration toward limonite.\*

Red, hematitic rock having the usual dip and appearance of hematitic Animike strata is seen in a shallow railroad cut about  $\frac{1}{4}$  mile south of Mallmann's camp.

Mr. Willard visited Partridge river and examined some exposures of rock in the neighborhood. Gabbro was seen in a railroad cut  $\frac{3}{4}$  mile north of Beaver creek, sec. 5, 58-14. It was exposed for 150 feet along the track. It was somewhat decomposed and weathered into rounded, boulder-like forms, 386. One-quarter of a mile farther south is another cut through gabbro. The same rock is seen on the south side of Beaver creek about a hundred paces from the railroad track, and in fact forms all of the knolls and is seen in all of the cuts for some distance south of Beaver creek.

On the south side of Partridge river, about in the N. E.  $\frac{1}{4}$ , S. W.  $\frac{1}{4}$  sec. 9, 58-14 just above a small creek is a low outcrop of black or dark-gray, siliceous, thick-bedded slate which seems to dip about  $20^{\circ}$  N.,  $80^{\circ}$  E. A system of vertical joints pervades this rock, the general direction of which is about east and west. About 200 feet down stream from here the river runs over the edges of these beds of slate. Following the rock for some distance down stream an old shaft is seen but no interesting features are exposed by it. It is in a ridge whose course is nearly north and south. Exposures of this same rock were noticed in several places in this vicinity; the ledges rising about 8 feet above the general level. The gabbro overflow surrounds and nearly covers this rock. The strike of the slates where the strata have been broken or lie in ridges for any distance, is N.  $10^{\circ}$  W. This rock is not exposed over a region exceeding 350 feet in diameter. It seems to be a little of the Animike formation which was not

\* An analysis of this limonite, made by Mr. C. F. Sidener, gave the following:

Silica, Si O <sub>2</sub> .....	3.52 per cent.
Sesquioxide of iron, Fe <sub>2</sub> O <sub>3</sub> .....	87.10 per cent.
Manganese.....	traces.
Lime and Magnesia.....	traces.
Phosphorus, P.....	.023 per cent.
Sulphur, S.....	traces.
Water, H <sub>2</sub> O.....	9.70 per cent.
	<hr/>
	100.343
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Metallic iron, Fe.....	60.97 per cent.



covered by the gabbro overflow. It is not iron-bearing here to any appreciable extent as are the strata generally farther north. It occurs in thick, homogeneous beds in which the sedimentation is quite evident. It is silico-argillaceous and seems to be carbonaceous. Samples are numbered 387. The rock lies in lower ground than the surrounding gabbro knolls, between which and the slate a swamp intervenes.

In the N. E.  $\frac{1}{4}$  of the S. E.  $\frac{1}{4}$  sec. 11, 59-14 is a shaft five feet deep. No rock *in situ* appears to have been encountered in it; but many fragments of reddish-gray, quartzose rock are seen in the sides of the shaft and on the surface round about. This land is 140 feet lower than that  $\frac{1}{4}$  mile north of here. Samples of reddish hematitic ore from here are 388.

About 250 paces west of the east quarter post of sec. 11, 59-14 is a shaft dug to a depth of ten feet by the face of a north and south ledge of rock. The strata here dip about  $15^{\circ}$  slightly to the south of east. Good iron ore is seen in veins or bands 2 or 3 inches thick in the face of this ledge. This wall of rock is exposed for several rods north and south of this shaft. It is noticeable that the prevalent direction of the joints in this formation is north and south.

In a part of sec. 11, 59-14 which was visited on our return to Birch lake, near the center of the section, Keewatin rock is found standing as usual in vertical strata. It is quite feldspathic. Above it, separated by a few feet only of unexposed rock covered by drift, are masses of Animike strata 15 feet long and 8 feet thick which seem to have been but slightly disturbed from their original position. A sample of the Keewatin rock is 389. There are quartz veins in it which contain talc-like scales. 389 A. Some of this vertical schist is graywackenitic and some granulitic. Some resembles the rock found at Partridge river supposed to belong to the Animike, 390.

Outcrops of felsitic, siliceous schist in vertical strata with a strike N.  $80^{\circ}$  E. are seen in N. E.  $\frac{1}{4}$  sec. 15, 59-14 near the north section line; 391.

Southeast from the last about 200 paces and 40 feet higher is found a large solid outcrop of iron ore rock. It rises five or six feet and is seen for four or five rods. It is horizontally stratified or has a dip of less than  $10^{\circ}$  to the east. This is considered as certainly lying unconformably on the vertical Keewatin. No. 392 is from here.

There is another ledge of iron ore rock (Animike) in N. W.  $\frac{1}{4}$

N. W.  $\frac{1}{4}$  sec. 14, 59-14 near the center of the quarter section. Some good ore is found here, 393. From the way in which the Keewatin schists are found to underlie all this Animike an observer receives the impression that an iron mine or iron lands in this formation *here* are not of much value, for it is doubtful whether a shaft 40 feet deep could be made in the iron ore rock anywhere in this township without passing through it and reaching the Keewatin.

Fragments of the Keewatin rock are seen all along the trail in Twp. 60-13, indicating that it outcrops somewhere and perhaps at several localities between the trail and the syenite ridge. The number of rough pieces of Animike rock that are everywhere seen along this trail show what was the entire surface of the land south of the Giant's range and indicate that the region immediately south of the ridge was to a great extent protected from the force of glacial erosion.

A sample of quartzite which was seen in angular fragments in 60-13 was obtained as showing fine stratification. It contains a little magnetite in bands which fade out completely in this specimen. No. 394. Deposits of magnetic sand are seen on the shore of Birch lake where the trail starts out, S. W.  $\frac{1}{4}$ , S. E.  $\frac{1}{4}$  sec. 32, 61-12. No. 395.

#### BIRCH LAKE REGION.

*Tonga or Dunka (sand) river.* This name is bestowed by the Indians on account of the extensive banks of reddish sand and gravel which form the shores of the lake near the mouth of the stream and also compose the bed of the river for a short distance above the lake. Mingled with this red sand is more or less black magnetic sand sometimes in such quantity as to make the beach black. An instance of this is in the S. W.  $\frac{1}{4}$  sec. 33, 61-12.

For a mile up this river there is a large amount of drift containing many boulders. The land rises in east and west ridges 100 feet or more above the river. Near the south side of sec. 4, 60-12 the ridges seem to be composed almost wholly of large granite and syenite boulders. It can not be ascertained certainly whether they are underlain by rock of the same nature *in situ* or not.

South of this ridge is another in S.  $\frac{1}{2}$ , N. W.  $\frac{1}{4}$  sec. 10, 60-12\* which has, exposed on the surface, many angular fragments of

\* This ridge is referred to by N. H. Winchell, in his fifteenth annual report, p. 341.

semi-stratified rock consisting mainly of magnetite and olivine with some quartz. This rock appears to be *in situ* at two or three places on the north side of this ridge and to dip S.  $70^{\circ}$ – $80^{\circ}$ . Syenite is found in ridges south of here, and some distance south of them is found the gabbro. The Animike, therefore, has here a range of syenite between it and the gabbro. Samples of the iron ore rock from 400 paces east of the west quarter post sec. 10, 60–12 are 356. The needle dips N.  $60^{\circ}$  to  $70^{\circ}$  here.

*Other localities around Birch lake.* Pursuing a trail which leads south from the lake, starting in the N. E.  $\frac{1}{4}$  sec. 26, 61–12 toward some claim cabins in sec. 35, 61–12 some interesting rocks were seen. A short distance from the lake is a knoll of fine-grained crystalline rock which is generally considerably decomposed and yellowish in color. It has the composition of gabbro and is apparently the rock that first cooled on the outer edge of the gabbro overflow. It contains both biotite and hornblende sparingly, also olivine and magnetite, but is principally made up of labradorite. There are spots in it of light-colored feldspathic rock which appear to be boulders whose outline is not distinguishable from the rock mass. A sample of the fine gabbro or muscovado-like rock is 396. A sample from one of the boulder forms is 396 A. These are from the N. E.  $\frac{1}{4}$  sec. 26, 61–12. This gabbro appears in small, detached knobs lying on the Animike iron ore beds. These beds are somewhat disturbed and broken and vary in dip to the southeast from  $12^{\circ}$  to  $30^{\circ}$ . Near these knolls of gabbro the iron ore rock is semi crystalline, containing porphyritic crystals of hornblende sometimes two and a half inches long. Specimens from here are 397, 397 A, and 397 B. There are large outcrops of this Animike rock here. Sometimes the stratification is not very evident, but generally it is distinct and well-marked, 398.

The beds here have the same vertical joints running north and south; and present east and west vertical faces from four to fifteen feet high such as are seen south of the Giant's range. Loose, angular fragments of Keewatin schist are seen here and probably lie near the surface in the vicinity under the Animike. Some of the Animike is almost all quartz which forms a coarse granular sandstone on decomposing. A specimen from the E.  $\frac{1}{2}$ , N. W.  $\frac{1}{4}$ , sec. 35, 61–12 is 399. Glaciation here is about N.  $15^{\circ}$  E.

In the S. E.  $\frac{1}{4}$ , N. E.  $\frac{1}{4}$  sec. 35, 61–12 are several ridges of magnetitic quartzite having vertical faces 15 feet high on the west side. A few feet west of one of these walls of rock there is



a knoll of syenite. The latter is porphyritic with pink and white feldspar and contains both biotite and hornblende, together with a considerable proportion of quartz. It rises in the knoll as high as the top of the quartzyte ridge but slopes down and runs under it. The syenite is 400. The quartzyte is in beds which are nearly horizontal and seem to have about the same texture and composition where it lies on top of the syenite as they have ten feet higher up, 401. A claim cabin is located on the syenite ridge only a few rods from the quartzyte ledge. The syenite is cut by a few veins of fine, pink granulyte. The situation is shown in Fig. 2.

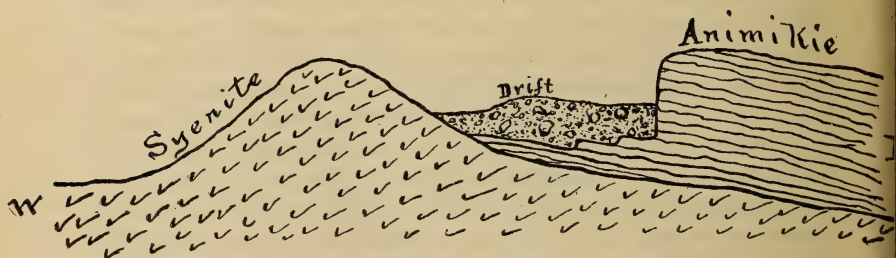


Fig. 2. Relation of syenite and Animike ridges. The little valley between the two ridges is about 12 feet deep and 35 feet across. The west face of the quartzyte is perpendicular. The land is covered with small pines.

A trench was made with some labor from the quartzyte to the syenite thus exposing the manner of contact. The Animike was found to lie on the syenite in a thin, hard, hornblendic stratum about six feet from the main mass of exposed syenite. It was buried under about five feet of till with hardpan at the bottom. Samples of the layer of Animike rock found lying on the syenite are 406.

In the first shaft that was dug down at the foot of the Animike bluff a large mass of greenish Keewatin rock was encountered that prevented further excavation at that place. This rock, which was supposed to be a drifted fragment, was coated with a crust of calcite crystals all over the top. In several places the syenite was seen to have a thin layer of the hardened Animike rock adhering to it which had not been removed by glacial scraping. From the appearance of such rock it seemed as though the abrading action of the ice was not so violent as is generally supposed.

In the N. E.  $\frac{1}{4}$  of S. W.  $\frac{1}{4}$  sec. 35, 61-12 the magnetitic quartz-

yte is exposed in many places. It seems to have been affected by some metamorphosing agent which has produced large crystals and masses of crystals of hornblende in it. Some of these crystals are three inches long. They frequently are rounded or lenticular as a whole mass and suggest included boulder forms, 402.

West and northwest from the last locality the ground rises and syenite is found outcropping in quite extensive ridges. This is near the west quarter post of the section.

Toward the S. W.  $\frac{1}{4}$  sec. 35, 61-12 the land rises until it is 200 feet above Birch lake. On this high land many large, smooth-topped exposures are produced by recent extensive wind-falls. The strata seem to have been disturbed and slightly elevated by some force from beneath. The usual dip—less than  $30^{\circ}$  to the southeast—is, however, still maintained. This rock is coarse and more quartzose and has quartz veins penetrating it. Glaciation is finely exhibited in many places and seems to vary, as near as could be estimated, by comparison with the section lines, from N.  $12^{\circ}$  E. to N.  $30^{\circ}$  E. Syenite is reported to outcrop about one-half mile west of the S. W. corner sec. 35, 61-12. Some of the beds of this Animike rock are but slightly iron-bearing and are almost wholly composed of olivine, 404.

In the N.  $\frac{1}{2}$  of the S. E.  $\frac{1}{4}$  sec. 24, 61-12 there are several exposures of Animike rock in shafts which have been dug in the search for iron ore, as well as on the surface. The rock is dark, heavy and magnetitic and exhibits fewer sedimentation bands than usual. But it has the general dip of this formation and is rich in olivine. There have been six or eight shafts sunk at this place; some of them are nine or ten feet deep and furnish good sections of the rock strata. Some thin strata of rich magnetite are seen in the rock; but they are always separated from each other by beds of poor ore or of quartzite, 405. Much of this rock is hornblendic; the crystals appear right in the middle of olivinitic and finely granular strata containing more or less magnetite. These crystals of hornblende are in the strata ten feet below the surface beds, and are sometimes two inches long or more, 405 A. In places the rock has been moved on itself and has thus formed fine slickensided surfaces, 405 B.

There is a heavy covering of drift sand and boulders here. Granite in place and gabbro lying on it were seen a short distance farther east in the S. E.  $\frac{1}{4}$ , N. W.  $\frac{1}{4}$  sec. 24, 61-12. The Animike beds seen in the vicinity were in knolls that rise above the



granite and gabbro and are estimated to be 150 feet above Birch lake. A thickness of about 25 feet of the iron-bearing strata was seen in the various shafts.

This same rock outcrops on the west side of the little bay in S. E.  $\frac{1}{4}$ , S. W.  $\frac{1}{4}$  sec. 24, 61-12, a short distance back from the shore. At this place it is much decayed and jointed.\*

*Vicinity of Kawishiwi river.* Going south on the range line between townships 62-10 and 62-11 on the south side of the river in S. E.  $\frac{1}{4}$  sec. 13, 62-11, search was made for the iron ore reported by Mr. Lorenzo Cleaves. Nothing was found for half a mile except syenite in a ridge about 75 feet, by aneroid, above the river. Then there is a swamp and a creek, and gabbro hills are reached in S. W.  $\frac{1}{4}$  sec. 19, 62-10. These hills are but a little over 100 feet above the Kawishiwi. The gabbro is seen in bare knobs and vertical bluffs 20 to 40 feet high. Some masses of gabbro 30 feet in diameter have been pushed up on top of the smoothed knolls of solid rock and left there by the ice.

In the S. E.  $\frac{1}{4}$  sec. 30, 62-10 are several shafts, some more than 20 feet deep, in magnetite ore. The magnetic attraction is very strong here and the needle dips 90°. There being more than a mile and a half of gabbro north of this place and this iron ore itself being in hills of gabbro 100 feet high it would naturally be supposed that this ore is gabbroitic magnetite and therefore titaniferous.

But the ore is olivinitic and generally quite fine-grained, and the rock which contains it is not a massive crystalline rock like gabbro, but stands in beds which are nearly vertical, though the dip is not constant. These strata are olivinitic and besides being finely granular, possess a banded structure and are evidently *transported beds of Animike strata contained in the great gabbro overflow*. Whether they are between overflows of different dates or were surrounded and taken to their present position at the time of a single eruption was not evident, but the latter is more probable. The gabbro itself being also largely composed of magnetite here renders it more difficult to distinguish between the two kinds of rock. Samples from the S. E.  $\frac{1}{4}$  sec. 30, 62-10, showing banded structure supposed to be due to sedimentation are 407. Specimens of the coarse gabbro magnetite are 410. The Animike is quite hornblendic here as at the locality north of Birch lake, sec. 24, 61-12. The gabbro which forms massive knolls all around this place is not so much decayed as the iron

\* N. H. Winchell, Fifteenth annual report, p. 335.

quartzite, nor does it display any banding nor any other signs of bedding as do the enclosed strata of Animike.\* The general strike of the latter is east and west.

A trip was made from the Kawishiwi river in N. W.  $\frac{1}{4}$  sec. 25, 63-10 southeastward into sec. 36. Gabbro ridges and knolls from 70 to 100 feet above the river are crossed. Many large fragments of greenish schist from farther north lie on the surface, also boulders of syenite and amphibolyte or dioryte. This gabbro is rather coarse and is magnetitic in spots and streaks; 412. There are belts of coarse hornblende and labradorite found in it. 412 A. Included in the gabbro are irregular masses of all sizes of fine, grayish rock that seems to be composed of rounded grains and resembles Animike. There is no evidence left of former stratification, and in places where it has been highly altered this rock has the composition of a fine gabbro. But the transition from it to the gabbro is always abrupt and the outlines of the included masses of it are plainly seen. 413. This rock is slightly ferruginous if at all; but the gabbro contains much shining, coarsely crystalline magnetite. 414.

In the S. E.  $\frac{1}{4}$ , S. E.  $\frac{1}{4}$  sec. 25, 63-10 the gabbro contains some large masses of very coarse hornblende. There are places in the gabbro four to six feet in diameter which contain or are wholly made up of black hornblende crystals six inches long. There is a little mica in connection with it, also some coarse labradorite. 415.

*Vicinity of Long Lake.* The hills in the N. W.  $\frac{1}{4}$  sec. 20, 63-12 are composed of diabasic rock. They rise about 100 feet above

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\*An analysis of the magnetite supposed to belong to the enclosed beds of Animike and therefore to be non-titaniferous, was made by Mr. C. F. Sidener. No titanium being found in it the effect of the gabbro does not seem to have been intense enough to invest the magnetite with harmful ingredients.

Silica, $\text{SiO}_2$ .....	11.39 per cent
Alumina, $\text{Al}_2\text{O}_3$ .....	Traces.
Magnetic oxide of iron, $\text{Fe}_3\text{O}_4$ .....	85.55 per cent
Titanium, $\text{TiO}_2$ .....	None.
Lime, $\text{CaO}$ .....	.22 per cent
Magnesia, $\text{MgO}$ .....	3.44 " "
Phosphorus, P.....	.02 " "
Sulphur, S.....	Traces.
	<hr/>
	100.62 " "
	<hr/>
Metallic iron, Fe.....	61.95 " "

the lake, and in them are seen the same coarse boulder forms\* as have been noticed in this rock farther east, also at the railroad cut near the Chandler mine, on the south shore of the lake in sec. 28, and in the N. E.  $\frac{1}{4}$  sec. 5, 62-12. On the north side of the first ridge north of the lake the rock is not so diabasic, but is the usual more or less fissile sericitic schist.

In the N. E.  $\frac{1}{4}$  sec. 9, 63-12 the sericitic schist changes rapidly across the strike, going north, into granite, becoming first siliceous, then felsitic or feldspathic and finally micaceous. Specimens illustrating this are Nos. 416 to 416 E. The granite still preserves in places a coarse vertical schistosity. North of this granite, which continues only for a short distance, is hornblende biotite schist crossed by veins or intrusions of syenite and granite; 417. This dark schist is in vertical strata having the usual strike of about N. 60° E. The lake which lies in sec. 4, 63-12 is about 75 feet higher than the lake just south of it.

Going overland from the lake to the N. W. corner sec. 4, 63-12 the rock is found to be hornblende-biotite schist dipping north at an angle of 75° or more. Most of it is very dark colored and heavy, 418. Nothing was seen of the belt of magnetic iron which had been reported to exist in this section.

Going south from Ely into sec. 4, 62-12 the rock is found to be mostly covered by a thick deposit of drift until the N. W.  $\frac{1}{4}$  sec. 4 is reached. Here there is seen an abrupt ridge of sericitic green schist striking N. 60° E. and having a vertical dip. This ridge rises 75 feet above the swamp on the north side of it. The rock contains considerable calcite as at Ely. 419. Going west several pits are seen dug in the low ground north of the ridge. All of them penetrate a soft reddish rock strongly impregnated with iron similar in appearance to that in the mines at Ely. It seems probable that the depression north of this ridge may have been produced by reason of the softer nature of the iron ore beds which may lie in there. And it is not at all unlikely that rich beds of soft ore underlie the swamp referred to. In the N. E.  $\frac{1}{4}$  sec. 5, 62-12 a large, glaciated surface of the green rock is exposed. There is here a fine exhibition of the coarse agglomeritic structure mentioned above. A diamond drill just east of this place has gone down 60 feet in the same rock.

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\*This is referred to by Mr. A. C. Lawson in his report on Lake of the Woods as a "concretionary (?) trap structure."



## LAKE SUPERIOR TRIP.

The country south and east of Bald Eagle lake (the Indian name for this lake is *Mishiwishiwisagaegan* or Beaver-house lake) has been burnt over and is now covered by a small growth of aspens, birch, jack pine, spruce, etc. It is rocky and hilly, the hills of gabbro rising 100 feet or more above the general level. The route to lake Superior lies up the river which enters the south side of Bald Eagle lake. This stream is smooth for a short distance and has low swampy banks. A rapid where the river falls 50 feet is then encountered and above it again the smooth, currentless stream. The solid rock is all gabbro and most of the boulders are of the same material, though there are a few boulders of Keewatin greenstone and of granite. On the first portage there are seen some large pieces of white vein quartz. The gabbro for a mile or two is almost wholly composed of labradorite. In one place was seen quite an accumulation of boulders of siliceous greenish rock like that at the west end of Knife lake.

The land in the S. W.  $\frac{1}{4}$  of township 62-8 is quite uniformly level. The lake in sections 29 and 32 has low shores, mostly marshy. The rock is gabbro, many boulders of which lie around. The lake and river seem to be almost on top of the gabbro ridge, the hills around them are so low.

*Lake Isabelle.* The shores of the west side of this lake are composed of gabbro. They are generally about ten feet high, but sometimes rise to forty feet. The gabbro is very much decayed near the surface. It is composed principally of labradorite; but contains some biotite and a little magnetite. There are occasional small pieces of granular olivinitic rock, supposed to be Animike, enclosed in the gabbro. They are hard and sometimes have a basaltic structure. A sample of gabbro from N. W.  $\frac{1}{4}$ , S. E.  $\frac{1}{4}$  sec. 35, 62-8 is 420. There are numerous boulders of fine siliceous greenstone from farther north seen lying around the shores of the lake. The Indians call this lake by the same name as Gabbro lake, viz.: *Kazushkonabigka-gamak*, the lake-with-the-shores-of-shelving-rock. On the east side of the point last mentioned is a beach of sand and pebbles. The latter consist of siliceous greenstones, porphyrytes, granites and gabbro, 421.

The gabbro in the bay east of this point is smoothed by glaciation and considerably decayed. It contains in one place ten feet of hard, greenish rock in a dyke or bed about a foot wide, which

seems at first to be trap, but is not massively crystalline and seems to contain some rounded grains, and therefore may be Animike rock hardened by the action of the gabbro.

In the S. W.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 36, 62-8 there is a dyke 16 inches wide exposed for 30 feet. It is perfectly straight and is composed of tough green rock. The dyke walls are well-defined and it maintains the same width for the whole distance of its exposure. This rock hardly appears like trap; it is too granular and not sufficiently crystalline. Neither can it be said to resemble the Animike rock. The direction of this dyke is N.  $64^{\circ}$  E. 422.

In the S. E.  $\frac{1}{4}$  sec. 36, 62-8 the gabbro stretches out in long, low reefs into the lake. Beds of sand which is the result of rotting gabbro occupy the hollows. There seem to be layers or beds in this gabbro that are like the rock found in the dyke, 422. The question arises whether this rock was igneous and flowed over on the gabbro or whether it is changed Animike enclosed in it. Glaciation is N.  $24^{\circ}$  E.

Some of the gabbro is fine grained and brown and contains more biotite than the gray. Perhaps this is what has been called "muscovado." One sample from the south shore of the lake just east of the range line in Twp. 62-7 (unsurveyed) is 423.

Swamp Lake river (*Maskigo-sibi*) enters lake Isabelle on the east side. This river is a series of lakes connected by a small stream. About two miles up this stream a change takes place in the gabbro. It is found to be composed of re (sh feldspar and much hornblende with a little biotite, magnetite, pyrite and sometimes galena. Streaks of this reddish gabbro are first seen running through the gray and then it all becomes red, and large massive knolls are formed of it. Nos. 424, 424 A. and 424 B. illustrate this change.

The route to lake Superior lies through the series of small lakes connected by a stream which comes from the east and south-east. This stream is very rocky and full of rapids and comes from Kaminisabikokak lake which has been re-named lake Bellissima. This lake is about two and a half miles across from east to west and four miles long from N. W. to S. E. It is situated in the southeast part of Twp. 61-7, and perhaps extends into Twp. 61-6. Notwithstanding the rapids in the river a person receives the impression that the country is unusually level. No hills of any considerable height are seen, and at times the stream is merely a narrow lake a mile or more in length with a low



rapid at each end and shores not over 20 feet high. The country has all been burnt over and the only trees are small poplar, birch, willow and jack pine. A great many boulders principally of gabbro are seen on all hands. There are also boulders of trap and red Cupriferous rock for two or three miles west of Bellissima lake. The solid rock is all gabbro. West of the lake it is nearly pure labradorite, but toward the east it is associated with a larger proportion of magnetite. It decays rapidly and crumbles apart forming beaches of sand which is nothing but decomposed labradorite feldspar. The Indian name for this lake is applied with reference to the large number of boulders which line the shores and stand several feet out of water at some distance from the shore all around the lake.

There are sand and gravel beaches, beaches of small cobble stones, beaches of moderate sized boulders, and beaches where the boulders average more than six feet in diameter, while some are fifteen to twenty feet. The largest boulders are of gabbro; but many of the smaller ones are greenstone or red amygdaloidal trap. There are comparatively few exposures of solid rock around this lake, but all the rock that is seen is gray gabbro.

The stream which enters the southeast corner of the lake is canoeable for only a short distance, about half a mile above Bellissima lake. A portage of a half a mile is then made to a small lake and then another portage of one and a half miles south to lake Gaokakag, or lake Harriet. The country has a heavy covering of drift sand and gravel and but little rock is exposed. Many of the pebbles and boulders are from the Cupriferous. Occasionally there is seen an outcrop of gabbro, quite coarse and containing considerable magnetite. The surface is rolling and open, having been burnt but a few years ago.

*Lake Harriet* is about two miles long. It is a beautiful body of water set in hills heavily covered with white pine around the south half of the lake. High water is maintained in it by a beaver dam at the outlet. The long portage necessary to make in order to reach the lake from the north cuts off an impassable part of the river. This lake is 70 feet higher than the small lake at the north end of the portage. The country between these two lakes is good farming land, but is now nearly bare, having been burnt recently.

At the outlet of lake Harriet there is a massive exposure of reddish-gray rock, which crosses the river and forms a rapid.

This rock is a phase of the gabbro. Some of it is fine and hard and very tough. It is composed of hornblende, biotite and red feldspar. A little farther south the rock is coarser and contains a small amount of gray labradorite. Then the two kinds of feldspar occur in equal proportions. From here the red feldspar fades out until the usual condition of the gray gabbro is reached. Where the fine, hard, reddish-black rock is first seen it does not look at all like gabbro. Nos. 425 to 425 C illustrate the change.

Hornblendic gabbro is seen in a low exposure not far east of the north end of the lake. No. 426.

This lake is situated in secs. 20, 29 and 28, 60-6. Very few exposures of rock are seen around it, the shore being mostly composed of the drift which supports such a fine growth of pine. Hills of drift 60 feet high surround the lower end of the lake. A few boulders are seen on the lake shores, but they are mostly sandy. There is an immense accumulation of boulders just north of the lake — large bare ridges of all sorts of boulders, trap, gabbro, Cupriferous, Keewatin, porphyry, granite and Animike slate. These ridges are evidently morainic deposits.

A short portage of 285 paces leads southeast from lake Harriet to Pine lake just east of it. Some trap and a peculiar rock of various colors and texture were seen on this lake. The notes here were taken by Mr. Grant.

A half mile portage leads across the divide from Pine lake to a small, nameless lake 30 feet lower. No rock was seen around this lake.

A long portage, over two miles, leads south to *Kapokegamak* or *Crooked lake*, in Twp. 59-6. The country is all covered with a fine growth of green timber. The drift is rich and evenly distributed and the land is good for farming.

In sec. 15, 59-6 some fine-grained, olivinitic gabbro was found. It is cut by extensive dykes of green trap.

A sample of gabbro which was found in place on the west side of Crooked lake is 428. Steep hills of trap occur just west of the northern narrows, sec. 15, 59-6. This trap is porphyritic with green feldspar(?). It outcrops in several spots around the lake south of here. 429. Glaciation is N. 6° E.

From Crooked lake a short portage leads south to a small nameless lake on which no rock was seen. From here a portage of one-half mile leads to Nine Mile lake, so-called because it is nine miles by trail to lake Superior and no more canoeing. On

the north and west sides of this lake are exposures of rather fine-grained, olivinitic gabbro. 430.

Following the nine mile portage trail south a distance of one mile a small pond less than one-fourth mile long is encountered. This is 75 feet lower than Nine Mile lake. In the next half mile the trail rises 220 feet and reaches a pond 205 feet above the last small lake. Lake Superior can be seen from the hills surrounding this pond, which rise 75 feet above it. The land on the south shore of the great lake can also be seen with the naked eye. This pond is supposed to be in sec. 35. 58-6.

The creek which flows from the pond runs in a deep gorge. The east wall of this gorge is Cupriferous and the west wall is fine-grained olivinitic gabbro or trap. This is the first true Cupriferous seen on this route. It rises in high, precipitous hills consisting of a reddish felsitic rock very much jointed and containing light and dark spots and streaks. Several shafts have been dug at the foot of the gabbro ridge on the west side of the gorge mentioned above. Fragments of the reddish Cupriferous rock were thrown out from all of these pits; and in fact that is apparently the only rock found in digging them. In one of these shafts the red rock seems to be in place. This is just below the lofty bluff of gabbro which therefore seems to lie upon the Cupriferous here. Still they may be side by side and neither one be above the other. The gabbro contains more olivine and less magnetite than that seen six miles north of this place. The general boundary line between the gabbro and Cupriferous runs through the south tiers of sections in the east half of township 58-6. Samples of the gabbro are 431. The Cupriferous is 432.

Between this high ridge and the range of hills just north of the lake there is a low, broad valley heavily timbered. The trail does not cross the highest part of the ridge along the lake shore, but follows the valley of a small stream which seems to have cut a gorge through the ridge, but probably followed a natural depression. No rock was seen exposed south of the gabbro ridge. The trail descends 1125 feet between the small pond mentioned last and lake Superior. There are hills around this pond 100 feet high, and the gabbro ridge is therefore 1225 feet by aneroid above lake Superior, or 1827 feet above sea level. This trail comes out at Pork bay. The hills at the west side of this bay rise 330 to 460 feet above the lake.



## GUNFLINT LAKE.

A small stream from the north enters the east end of the lake just north of the boundary river. A few rods west of the mouth of this creek gabbro is seen lying in Animike slates. About one-eighth of a mile up the creek rock in place is noticed. This is a ridge of vertically bedded rock supposed to be Keewatin. Strike is N. 80° E. Dip is not constant. Some of it is fine-grained and flinty and resembles the Knife lake rock. 433. Farther up on the east side of the creek the same rock is coarser and not so siliceous, but contains chlorite or sericite. No. 434.

It was because of reports of red jasper being found here that a visit was made to this creek. This jasper was found to be in beds of Animike lying horizontally on the opposite side of the bed of the creek from the Keewatin. The bed of this stream lies in the line of contact between these two formations. The Animike is flinty and becomes more reddish farther up the creek, 435.

About one-quarter of a mile up the stream the creek spreads out into a marshy lake. A north and south Canadian survey line between 297 T and 298 T crosses the creek at the head of the rapid water. At this place, on the east side of the stream, are thick beds of horizontal Animike. It has here the nature of a somewhat decomposed, fine, dark conglomerate. The pebbles in it are iron rusted; they are sometimes an inch long, but generally less than half an inch. They are flattened horizontally, 436. On a knoll above this conglomerate, a short distance east of it is found another outcrop of schistose Keewatin. It is greenish and somewhat sericitic, 437.

In the bed of this same creek there is found the contact between Keewatin and Animike. The two rocks are very similar in appearance and texture at the point of contact, and it is only by following up what is plainly Keewatin on one side and what is known to be Animike on the other until they come together that the junction could be determined. Even then the actual line of contact could not be seen, being in the bed of the creek of running water; but a person can stand with one foot on rock that is plainly horizontally stratified and is magnetitic, and the other foot on a slightly different rock that is lighter colored, contains no magnetite and has vertical bands of sedimentation. The space between is occupied by rock that may belong to one formation or to the other and is somewhat

broken up. The best place to observe this contact is at the water's edge on the east side of the brook. The Keewatin strikes N. 80° E. and has a high dip to the north or is vertical; a little farther down the creek, however, it dips S. 75°. A ridge of the Keewatin on the east side of the stream rises above the Animike which lies unconformably in almost flat beds upon and against it. The Animike is 438. Specimens of the Keewatin are 439.

Going south from Gunflint lake to Loon lake a ridge of gabbro 300 feet high is crossed. Loon lake is 195 feet above Gunflint by aneroid. Mayhew lake is 110 feet above Loon lake. It is surrounded on the west side by low gabbro hills. This gabbro contains considerable magnetite. Several claim cabins are located on this gabbro ore. The gabbro in Tucker lake just west of Mayhew lake is also magnetitic. It is quite coarse and decayed and presents a gneissic or foliated appearance. A sample from N. E.  $\frac{1}{4}$ , N. W.  $\frac{1}{4}$  sec. 2, 64-3 is 440. In the S. W.  $\frac{1}{4}$ , N. W.  $\frac{1}{4}$  same section there is some fine dioritic looking gabbro which also contains magnetite. 441. This lake being 305 feet above Gunflint it is not likely that there is any Animike exposed on its shores; and indeed none was seen.

In the S. E.  $\frac{1}{4}$ , N. W.  $\frac{1}{4}$  sec. 2, 64-3 the gabbro contains parallel bands of magnetite which dip S. 40° and give the rock a decidedly stratified aspect. Some of the beds or bands of magnetite are four or five inches thick, others only a fraction of an inch. No. 442.

The gabbro on the south side of Tucker lake presents a basaltic structure. It is very coarse and the planes of intersection are nearly at right angles with each other. One set dips S. 20° W. 45°; the other set is vertical. The gabbro here is unusually biotitic. It also contains white feldspar equal in amount to the labradorite in places. No considerable amount of magnetite was seen around the lake. It was all mixed in with the gabbro.

The point that runs through sec. 35, 65-3, on Loon lake, is highest in the N. W.  $\frac{1}{4}$  sec. 35. It is made up of hills of Animike capped by trap or fine gabbro. There is here a thickness of about 150 feet of black Animike slate dipping S. 30° or more, and 30 feet or more of trap rock on top. The slate and trap are represented by 443 and 444 respectively. There is a gradual transition between these two rocks, the slates having been somewhat metamorphosed. Large pieces of coarse porphyry are seen on top of this hill. One large mass had trap rock stuck fast to



one side of it. This rock was not seen in place here, but evidently belongs in the vicinity. Nos. 445 and 445 A. are the porphyry and trap. The Animike here appears remarkably thick and the gabbro on top of less depth than supposed.

In the N. W.  $\frac{1}{4}$ , N. W.  $\frac{1}{4}$  sec. 23, 65-4 is a pit 12 feet deep which goes down through highly magnetitic beds of Animike for nine feet and then into the granite. This is nearly as high as the top of the Giant's range. The Animike is fine-grained and contains less olivine than that south of Birch lake, but has very much the same general appearance and lies like it, in strata dipping S.  $15^{\circ}$  to  $30^{\circ}$ . The best ore here is quite pure. About four feet thickness of this good ore is seen at the top of the shaft. 446. This ore possesses very strong magnetic properties. The beds of Animike which lie upon or closely above the syenite and granite seem to be very generally ferruginous and sometimes excellent ore.

The rock of the Giant's range here is very similar in texture to that south and west of Birch lake,—only it seems to contain mica here instead of hornblende. The gneissic structure, however, the color and the abundance of large bluish grains of quartz are suggestive features and remind one instantly of the Giant's range at Birch lake and at Hinsdale.

*Gunflint lake to Ogishke Muncie.* In the N. E.  $\frac{1}{4}$  sec. 25, 65-4, just at the upper end of the first portage on the river above Gunflint lake is a bluff of Animike slates on the south side of the stream, 75 feet high. The northern face of the bluff is perpendicular, exposing finely the edges of the nearly horizontal strata of black slate. This bluff of slate is seen to lie upon trap rock into which it grades by the metamorphism of its lower beds. This trap or greenstone extends in a bare exposure for 20 rods or more north of the river. It is seen to be at least ten feet thick and has a surface dip the same as the slate beds. In some places it is porphyritic with white feldspar in spots or streaks: it then looks like the porphyry, 445, found south of Loon lake. There is a great exposure of this massive rock here, and it is plainly seen to run under the slate bluff. Some of the Animike is a breccia containing angular pieces of some sedimentary rock and of a crystalline rock as large as six inches in diameter.

The greenstone which is probably part of the Keewatin, is cut by a fine trap dyke 8 to 15 inches wide, exposed for 150 feet running N.  $10^{\circ}$  E. It contains pieces of the Animike or some other sedimentary rock. Two or three smaller dykes run at

right angles to this one. Nos. 447 to 447 H are from here, also No. 448, which represents the brecciated Animike.

On the trail which runs west through sections 26, 27 and 28, 65-4, no rock other than Animike is seen. The country is elevated, 400 feet at least above Gunflint lake, and yet the nearly horizontal beds of slate are found all the way up to the top. Some of it is quite magnetic, but most of it is dark carbonaceous slate. Boulders of conglomerate apparently belonging to this formation but not seen in place are No. 449. Pebbles of quartzose and feldspathic rocks an inch and a half long are found in this conglomerate.

A diamond drill has been operated on the north side of the creek in N. W.  $\frac{1}{4}$  of sec. 28, 65-4. There has also been made a cross cut here up on to the hill. The beds of Animike slate and olivinitic magnetite have here a much higher dip than usual, —S. 60° —S. 75°. There is considerable good magnetite here, but the beds are not thick enough to pay for working, 450. The tilted condition of the Animike seems to be accounted for by the rock which lies under it and which rises about 100 feet above it in the ridge north. This rock is a kind of greenstone (Kee-watin), in some places looking a little like fine decomposing gabbro, containing considerable biotite at this locality. It contains labradorite and olivine and very little magnetite. The Animike is plainly seen to lie upon this rock which has slightly metamorphosed the nearest or bottom bed of quartzite and iron ore. The lower beds of the iron bearing formation here are often exceedingly pyritous. Nos. 451 and 452 are from here. The latter number is applied to drill cores from here. These show the gradations and changes of the Animike beds as they become crystalline toward the bottom and pass through metamorphosed strata into the greenstone. The manner in which the drill penetrated the beds of Animike is shown by the following diagram.

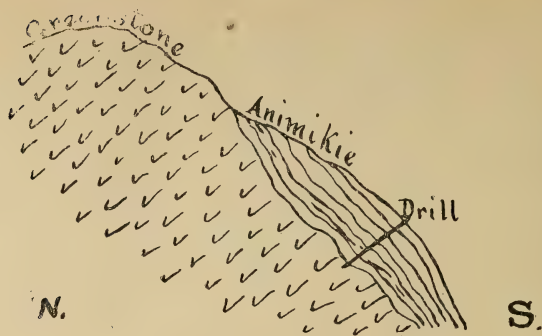


Fig. 3. Animikie beds on greenstone. West of Gunflint lake. East of Chub lake.

This greenstone-gabbro ridge runs west of here for several miles, and the Animikie is found to lie on it in several other localities much the same as it does here.

Another drilling was made about  $\frac{1}{2}$  mile south of the camp in sec. 28, 65-4. Samples from here are 453. These drill cores show the streaks and bands of hornblende crystals which are found in the lower beds of the Animikie quartzite; also the pyritiferous strata. Some of them contain biotite also and are partially metamorphosed into the underlying greenstone. This drilling according to Mr. John M. Millar of Grand Marais, one of the owners of the land, went through the ore in which it started, and about 12 feet into the "north quartzite," by which he must mean the underlying greenstone.

The same parties who did the work mentioned above also drilled in the N. E.  $\frac{1}{4}$  sec. 29, 65-4 a short distance west of the first drillings. According to Mr. Millar the record for this working, which is near Chub lake,\* is as follows: Quartzite 36 feet, clean ore 15 feet, mixed ore 17 feet, clean ore 10 feet, greenstone 12 feet. Mr. Millar calls the last "the north quartzite," but he evidently must refer to the greenstone on which the ore and quartzite beds lie.

From this record it seems that there is a large quantity of magnetite at this place which will probably prove to be valuable. The parties who own this property are waiting only for the advent of a railroad to commence extensive mining operations. This is the first deposit in the Animikie in Minnesota known to

\* Mr. Millar states that the name "Akeley" was applied to this lake several years before it was called "Chub lake." No map, however, has been seen to have that name and as it has already been referred to in published reports as Chub lake, the name is retained.

be of sufficient extent and richness to repay investment and development.

The usual route to Ogishke Muncie was not followed here, but the more circuitous one through the lakes southwest of Chub lake was taken. I can not refrain from stating here by way of parenthesis that the township plat of 65-4 is the most unreliable of any it has ever been my misfortune to be misled by. The lakes in the southwest part of the township are delineated by guess-work and very poor at that.

In the N. W.  $\frac{1}{4}$  sec. 35, 65-5 is a knoll of Animike quartzite. It has an elevation of about 50 feet on the south side of the stream. It dips south about  $75^{\circ}$  and strikes east and west. It contains thin beds of good magnetite, 454. Across the valley which lies on the south side of it, is found gabbro.

About a quarter of a mile west of the last is a portage of 100 paces around a rapid in the small stream. It is here seen that the knoll spoken of above is a part of a ridge of Animike that is found all along the south side of this marshy stream. On the south side of this portage trail, N. W.  $\frac{1}{4}$  sec. 35, 65-5, is a precipitous bluff about 40 feet high, facing north. The lower half or perhaps one-third of this bluff consists of greenstone similar to that north of Chub lake, but containing less biotite. The upper half or two-thirds is Animike quartzite and iron ore tilted up so as to dip S.  $70^{\circ}$  or more and striking about east and west. There is an abrupt line of contact here shown to exist between the quartzite and the Keewatin (?) greenstone and the impression made upon an observer of the situation is that the greenstone is the cause of high dip of the quartzite and iron ore beds.

This is a very fine contact. The stratified quartzite is seen for several feet lying directly upon the massive greenstone. At this place then the Animike is but very slightly modified by the igneous rock beneath it, and on that account it seems as though the strata must have been deposited in a horizontal position on the greenstone and that both were folded and tilted at a later period. But at other places east of here a few miles the Animike is greatly metamorphosed so that the line of contact is not discernible, and the greenstone might be supposed to be all modified Animike. The greenstone near the contact is a little finer-grained and less massive than it is two feet below; but no other change is apparent. Specimens of the Animike from the contact are 455. The contact was seen again 150 paces west of



this place; but it is not so plainly visible. Samples of the Animike from the western contact are 455 A. Specimens of the greenstone from the eastern place are Nos. 456 to 456 C, taken in order receding from the line of contact. Greenstone from the western contact is No. 456 D.

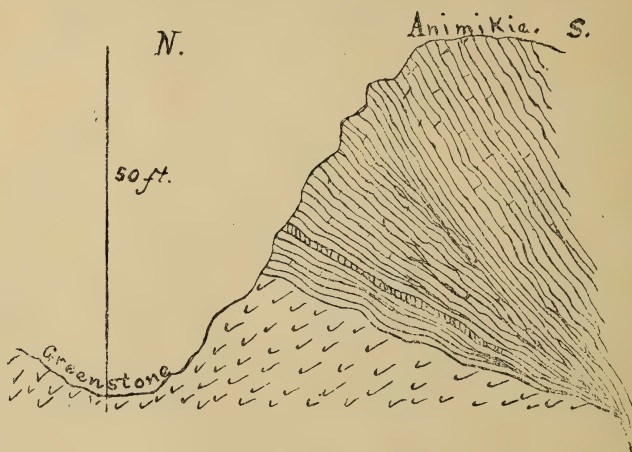


Fig. 4. Animike lying on greenstone, Township 65-5.

At the upper end of the portage are some large masses of greenstone, not in place, which are conglomeritic. Rounded pebbles and boulders of light and dark colored rock—some of them six inches in diameter—occur in it. This rock seemed to be very much like the conglomerate of Ogishke Muncie lake, 457.

On the north side of the creek from the bluff where the contact is seen there is a higher ridge than on the south side. The rock composing it does not appear to be so tough and basic as most of the rock which is subjacent to the Animike quartzite in this region, 458. It is a fine, greenish-brown, crystalline rock containing feldspar, mica, olivine (?) and a little magnetite.

Iron ore is marked on the plat as existing in large quantities on the line between sections 12 and 13, 64-6. This locality was visited and the rock was found to be magnetitic gabbro. No good magnetite was seen. Some of the gabbro from this place is very coarse and contains coarse hornblende, 458 A.

Gabbro is the only rock found along the shore of Gabemichigama lake for some distance from the N. E. corner sec. 6, 64-5,



459. It is quite fine grained and somewhat decayed. On the south side of the island in N. W.  $\frac{1}{4}$  sec. 6, 64-5, however, was found a bluff of rock rising 20 feet out of the lake, which may be modified Animike. It has gabbro on top and to the north of it. It is apparently not connected with the trap dyke which crosses the point southwest of the island on the main shore.

Iron ore being reported in the S. E.  $\frac{1}{4}$  sec. 1, 64-6, this place was visited. No extensive deposits of high grade or even medium grade ore were found. The rock is gabbro which is ferruginous in spots, 461. A rock was found here, lying under the gabbro, which may be Pewabic quartzite. It is gray and fine-granular and when decomposed resembles a sandstone. So little of it crops out of the hill here, and it is so covered by debris from above that but little could be learned concerning its relation to the gabbro, 462.

#### OTTER TRACK LAKE.

Red jasper and vertical magnetitic schists having been reported from this lake a visit was made to it. The lake is surrounded by high hills of siliceo-felsitic rock standing in vertical beds which strike on the average N.  $65^{\circ}$  to N.  $70^{\circ}$  E. on the south side of the lake. The strike, however, is not constant in all parts of the region bordering on the lake. In some places near the west end of the lake the evidences of aqueous deposition are unmistakable and exist in the shape of parti-colored bands running through the flinty rock. These bands do not always coincide with the schistosity which is a more general structure and subject to fewer deviations from the usual direction.

In the N. W.  $\frac{1}{4}$  sec. 33, 66-6 the hills are very high, being 290 feet above the lake by aneroid. Near the lake the rock is feldspathic and graywackenic. Farther south it becomes almost aphanitic and is flinty. One sample which shows a conglomeritic aspect of this rock is 463. A sample which is very much like the magma of the Ogishke conglomerate is 463 A. Other specimens showing the graduation into flint are Nos. 464, 464 A and 464 B.

In the bottom of the valley in N. W.  $\frac{1}{4}$ , N. W.  $\frac{1}{4}$  sec. 33, 66-6 some of the rock is magnetitic. It stands like the rest of the rock and the ferruginous strata are very limited in extent. 465. Up on the hill east of the last are seen a couple of short twisted jaspilite beds inclosed in the rock. They are not over a foot or

eighteen inches wide and but a few feet long. They stand vertical. The iron ore in them is magnetite. No. 466. The contact between the jaspilite and Keewatin is abrupt. 466 A.

On the north side of Otter Track lake in what would be the N. W.  $\frac{1}{4}$  sec. 27, 66-6 if the U. S. survey lines were extended across into Canada, is a perpendicular bluff of rock 120 feet high and rising still much higher a short distance back from the lake. This bluff consists of sericitic or chloritic schists in vertical beds — as far as any bedding was observed — and striking N.  $75^{\circ}$  E. At the top this rock is seen to be a coarse green agglomerate like that in the Keewatin at Long lake, made up of coarse boulders of the same material as the formation in general. It is also calciferous, and the boulders are amygdaloidal, particularly around their periphery. In fact the rock is macroscopically identically the same in every respect as that around Ely. Samples of the boulders which contain amygdules are 467. Specimens from boulders which were not amygdaloidal are 467 A. The rock between and around the boulders is calciferous and sometimes quartzose, and is very frequently a breccia, 468. This rock appears very much like the regular Keewatin schists which grade into it in this region and which grade in the other direction into the fine vertically bedded siliceous rock of Knife lake, and the same rock on the north side of this lake both of which show indisputable sedimentary banding. It is impossible to separate or distinguish a line of separation between these rocks. They grade conformably into each other.

Just east of the perpendicular bluff mentioned above, the bluffs are lower. The next one east is a cliff of magnetitic jaspilite. The beds of ore and jasper are very much crumpled and distorted; but in spite of the folding and doubling the strata are always nearly vertical. The jasper is colored various shades of red to nearly or quite black, and the iron ore does not amount to much. There is, however, a large body of these iron schists inclosed in the green schists here, the jaspilite continuing for 100 paces along the shore and 40 paces back from the brow of the cliff. The green schist runs into and around parts of the jaspilite in long elbows and tongues. The contact between the two was seen in several places. It was always abrupt and vertical and the change was not gradual but immediate from one to the other. The contact lines are in all directions of the compass. The jasper soon becomes narrower and stops suddenly at both ends in the line of strike. It is a little peculiar that such a

crumpled mass of jasper and magnetite should occur in the green schists here and have no continuation in the line of strike nor any connection with the Keewatin. Samples of the jaspilyte are 469. The magnetite is 469 A. Specimens of schist and jaspilyte from a contact are Nos. 470 and 470 A. The strata in the jasper and iron cliff are generally less than half an inch thick but sometimes a stratum of jasper two inches wide is seen. Glaciated surfaces are observed on the side walls of these bluffs both at top and bottom.

The following figure shows how the jaspilyte beds are crumpled.

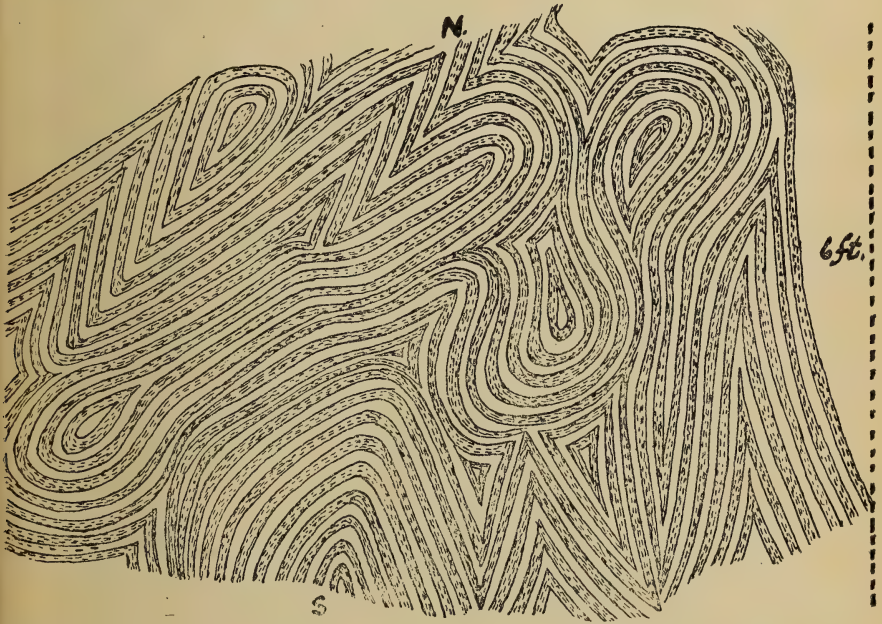


Fig. 5. Distorted beds of jaspilyte; north shore Otter Track lake.

There is a trail running north from Otter Track lake about one mile and a half from the western end. The country is surveyed and good lines are cut. The hills crossed by the trail are very high, some of them being the most elevated land in the entire region, commanding a view of the country for miles around. They are all heavily timbered and have some good white and Norway pine.



The rock is the same for at least a mile and a half north of the lake. That is, it all belongs to the same formation, supposed to be the Keewatin. It stands in vertical beds which strike N.  $50^{\circ}$  to N.  $75^{\circ}$  E. Some of it is quite finely schistose and chloritic and some becomes hard and feldspathic and semi-crystalline. A tough, green sample of the latter kind of rock is 471. It is from the corner marked "R 333" and "R 337," about half a mile north of the lake.

One high ridge consists of this green rock in a porphyritic state. The feldspar crystals are large but are not pure nor angular in shape. In fact they appear more like rounded lumps of white felsyte, but are evidently crystalline. Samples of this rock from the north side of a lake about half a mile long which lies near Otter Track lake on the north, are 472.

Coarse agglomeritic greenstone similar to that at Ely was also seen here. It always presents the fine amygdaloidal cavities and small calcite amygdules around the peripheries of the boulder forms inclosed in it.

In many places north of this lake there may be seen beds of red and black jasper and magnetite enclosed in the green rock. These deposits vary in extent and in the richness and purity of the ore which they contain. Sometimes the rock itself seems to fade into jasper and to become ferruginous and banded. At other times the rock is quite massive in appearance and has an abrupt contact with the enclosed masses of jaspilyte. The fact that some of the jaspilyte beds seem to graduate into the green rock seems to afford some support to the theory that some beds of the Keewatin formation are ferruginous, and that owing to their different composition they were not rendered hard, massive and semi-crystalline nor soft and schistose by the heat and pressure attendant upon the folding of the earth's crust, but present the evidence of having been subjected to these same forces and influences in the crumpled condition of their strata. It is very seldom that the beds of jaspilyte are straight for any considerable distance. They are almost always folded and bent as in the foregoing diagram.

Samples of the rock which seem to be grading into red and black jasper are Nos. 473 and 473 A. A sample in which the magnetite appears in the green rock and not in jasper is 473 B. The jaspilyte is 474. An average sample of the non-schistose variety of this rock is 475.

This green rock is all very much jointed and decayed far into



the seams and it is difficult to obtain fresh samples. No extensive iron ore deposits were seen. The beds of jasper and magnetite all seem to be quite limited in extent both as to length and thickness, and what there is, is at least half jasper and the other half but poor iron ore.

#### LAKE VIRÁ.

This lake is reached by a portage of 900 paces from the southwest end of Knife lake. It lies in sections 1, 2 and 3, 64-8 and is surrounded by vertical schists and argillites. A sample of argillite from the N. W.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 2, 64-8 is a fair illustration of most of the rock surrounding this lake, 476. The strike is N.  $80^{\circ}$  E.: dip at a high angle to the north: glaciation N.  $40^{\circ}$  E. This lake does not differ much from Knife lake in height: but it is 40 feet by aneroid above Ensign lake into which it flows by a good-sized stream.

There are high precipitous bluffs of schist and graywacke at the west end of the lake. We cut a portage of 1150 paces from lake Vira to Ensign lake. The country between Knife lake and Vira lake is burnt over, but that from Vira lake to Ensign lake is covered with green timber.

In the N. E.  $\frac{1}{4}$  sec. 10, 64-8 on Ensign lake the rock is a soft, fissile argillitic schist showing no bands of sedimentation but having a wavy schistose structure trending N.  $80^{\circ}$  E. The dip is about vertical or at a high angle to the north. Glaciation is N.  $24^{\circ}$  E.

#### DISAPPOINTMENT LAKE.

This lake is reached by a portage of 1150 paces from Snowbank lake. There are two other ways to reach it by good portage trails. The physical aspect of the country around this lake is quite different from that around Snowbank lake. It is in a burnt region where the bare and dead tree trunks are still standing. This lake is 75 feet by aneroid above Snowbank.

About 450 paces from Snowbank lake a ridge of mica schist is crossed by the trail. The mica is in small glistening scales. The strike of this schist is N.  $45^{\circ}$  E. A sample from S. W.  $\frac{1}{4}$ , S. W.  $\frac{1}{4}$  sec. 32, 64-8 is 477.

This mica schist is cut and penetrated by intrusions or veins of fine-grained, red granite. This appears in the next ridge

east of last, 478. Large masses of conglomeritic mica schist appear here on the surface but do not seem to be in place. This rock however is found *in situ* at the east end of the portage in S. E.  $\frac{1}{4}$  sec. 32, 64-8. The schist is hornblendic and appears to be hardened. It is full of boulders of various kinds of crystalline rocks in masses of all sizes up to a foot in diameter. There is a great deal of this rock here. No. 480. A sample of mica schist from here which is not from conglomeritic beds and is more schistose than that which is, is 479. The conglomeritic mica schist is also penetrated by the red granite intrusions. 480 A. These are of all thicknesses up to 20 feet and run in all directions.

There is a dyke of trap rock on the north side of the portage at this lake. It is about 10 feet wide, and runs N.  $30^{\circ}$  W., 481. The strike of the schists here is not that of the formations generally in this region. It varies from N. E. and S. W. to N. and S. In the N. W.  $\frac{1}{4}$  sec. 5, 63-8, the strike is N.  $16^{\circ}$  E.

The schist is decidedly conglomeritic in the N. E.  $\frac{1}{4}$  sec. 5, 63-8. Most of the boulders are lenticular, but many of them are nearly round. The general strike, where there is any strike apparent, is N.  $30^{\circ}$  E. One sample of finely conglomeritic mica schist is 489.

In the S.  $\frac{1}{2}$  N. W.  $\frac{1}{4}$  sec. 4, 63-8 the mica schist seems to undergo a decided change, going east along the lake shore. It becomes less schistose, contains less mica and occurs in hills and knolls of uneven height which do not display any strike or evidence of sedimentation or schistosity. In the S. E.  $\frac{1}{4}$ , N. E.  $\frac{1}{4}$  sec. 4, 63-8 the rock does not seem to contain any mica, but is a fine-grained, grayish-brown rock like what has been termed in some former reports of this survey "muscovado." It lies in round-topped knolls which have the shape and appearance, at a little distance, of gabbro hills. Some of it is peculiarly mottled.

Going south from Disappointment lake into the N. E.  $\frac{1}{4}$  of S. W.  $\frac{1}{4}$  sec. 4, 63-8 a ridge of magnetite and quartzite is crossed. It is about ten rods wide: the strata stand nearly vertical and strike, as nearly as could be estimated, for the needle is reversed, N.  $70^{\circ}$  E. This rock is supposed to be Animike. It is olivinitic and fine-grained and the iron ore is brilliant and granular and very magnetic like the other ore from the same horizon. The only reason for doubting that it is Animike is that it stands on edge and has the "muscovado" or altered mica schist on the north of it.

Mr. H. W. Cheadle owns a claim here. He has done some strip-

ping which gives a good section of the rocks up the slope of the hill. Fine-grained gabbro is seen lying on the up-turned edges of the iron ore beds. This forms a small ridge. The next ridge to the south is composed of coarse gabbro containing a large per cent of titaniferous (?) magnetite. South of here are high ridges of this same gabbro. Nos. 490, 490 A and 490 B show the transition from mica schist to muscovado; 491 is the Animike iron ore and quartzite. This rock is much decayed and broken. It has suffered the effects of frost and forest fires as well as of upturning, gabbro overflow and glaciation. Fine-grained gabbro from on top of the ore beds is 492. Coarse gabbro is 493. There is quite a deposit of good magnetite here which may prove to be valuable.

The muscovado schist or rather the mica schist has somewhat the aspect of an altered igneous rock. It is not regularly schistose nor very micaceous but is full of holes and furrows, etc. The muscovado again grades into mica schist which is so feldspathic as to be almost gneiss, east of here. It is also generally conglomeritic; in some places almost entirely composed of small pebbles and boulders, in others not any being seen. Specimens of this rock from the N. E.  $\frac{1}{4}$  sec. 4, 63-8, are numbered 494.

The mica schist in the S. W.  $\frac{1}{4}$  sec. 34, 64-8 approaches gneiss in texture and composition. It is hardly at all schistose and in places is almost massive but has the cleavage and color of mica schist. It contains fine hornblende crystals. Some of it is firm and brittle and may be called fine syenite, 495.

In the S. W.  $\frac{1}{4}$  sec. 34, 64-8 the mica schist becomes much more regular and loses its conglomeritic aspect. It is hard and fine-grained. No definite and permanent strike or dip is discernible.

Near the west quarter post of sec. 34, 64-8 the mica schist has a kind of structure which runs N.  $10^{\circ}$  W. It also becomes conglomeritic, containing flattened boulders of granite and other varieties of crystalline rock eight inches long. The longer axes of these boulders point N.  $10^{\circ}$  W. This is regular mica schist conglomerate not like the many boulders and fragments of diabasic and porphyritic agglomerate which abound in this place.

There is a great exposure of conglomeritic mica schist in the N. E.  $\frac{1}{4}$  sec. 33, 64-8. It all has a general strike N.  $10^{\circ}$  W., and seems to be regular mica schist, 496.

In the N. W.  $\frac{1}{4}$  sec. 34 and the S. W.  $\frac{1}{4}$  sec. 27, 64-8 there is a most wonderful exhibition of conglomerate and diabase. Going



east from the point in the N. E.  $\frac{1}{4}$  sec. 33 the conglomeritic mica schist becomes coarser and more full of boulders. These consist of various kinds of light-colored crystalline and dark hornblendic rocks; and are many of them a foot long. The mica schist gradually becomes harder and less siliceous until it is diabasic. East of the lake there are high ridges rising 75 to 150 feet above the water. These become more and more diabasic until they culminate in a high ridge of nearly massive diabase about a quarter of a mile from the lake. There is a coarse schistosity seen in this ridge in places. The strike of the rocks as shown by the schistosity, the direction of the longer axes of the boulders and the foliation of the mica schist are all *about northwest*. These ridges offer one of the finest exposures of conglomerate and agglomerate seen in this entire region. The rock in places is just as full of boulders as it can be. These become smaller and more compressed toward the east, and disappear altogether in the vicinity of the diabase ridge. Some of the diabasic schist is porphyritic. Samples of the conglomerate are 497. Diabasic schist is 498. Diabase is 499. Gneissic schist from the edge of the lake showing foliation which was northwest is 500. Biotite schist from a well-defined dyke about a foot wide which cuts the diabasic agglomerate, running about east and west, is 501.

It is quite remarkable that there is here a gradual transition from mica schist to diabase. There is no place where there is an abrupt change. The mica schist is conglomeritic and the diabase is agglomeritic. They are both schistose and have the same trend and seem to be vertical, as far as bedding is indicated by foliation and schistosity. It is a very thick conglomerate too: fully two miles across the strike. No attempt will be made to account for this transition here nor to prove whether there are two conglomerates here or not.

In the N. E.  $\frac{1}{4}$ , S. W.  $\frac{1}{4}$  sec. 27, 64-8 the rock is very fine and even-grained, and so siliceous as to be flinty, 502. Glaciation is N.  $34^{\circ}$  E. No regular bedding or schistosity is seen here.

In the north end of the bay in the S. W.  $\frac{1}{4}$ , N. W.  $\frac{1}{4}$  sec. 27, 64-8 the siliceous rock becomes porphyritic with small imperfect white and yellow feldspar crystals. It is indistinctly conglomeritic in places and is coarsely schistose, 503. Large masses of hydro-mica schist are seen here and indicate beds of this rock in the vicinity.

West of here the rock becomes a porphyritic conglomerate and in places over quite a wide extent is micaceous porphyritic



conglomerate. Many of the included boulders are more porphyritic than the magma. The strike is N. 10° W. All of this rock is more or less hornblendic. Around the lake shores the rock is peculiarly pitted and full of holes where some of the softer boulders have been washed out. No pieces of red jasper were noticed in this conglomerate, such as are seen in the Ogishke Muncie conglomerate. Wherever the rock is decidedly micaceous it is intersected and penetrated by *red* granite or syenite intrusions. This is especially the case on the large island in the S. E.  $\frac{1}{4}$  sec. 32, 64-8.

#### ROUND LAKE.

This body of water lies west and southwest from Disappointment lake, the waters from which flow through Round lake before reaching Snowbank lake. It is 30 feet lower than Disappointment lake, and is reached from it by a portage of 540 paces. Mica schist is seen on the trail. It is more feldspathic and compact or gneissic than that farther northeast. In the N. E.  $\frac{1}{4}$  sec. 6, 63-8 the mica schist changes to gneiss or syenite gneiss. There is but a small quantity of this rock here, however, most of it being a mixture of mica and hornblende gneiss and mica schist. The beds have been considerably crumpled so that no general strike is observable. A sample of mica schist from the S. E.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 6, 63-8 is numbered 482. Syenite gneiss from the N. W.  $\frac{1}{4}$ , N. E.  $\frac{1}{4}$  sec. 6, 63-8 is 483.

The west side of Round lake has syenite around the shores. This becomes dark and siliceous and changed into a peculiar rock that seems to have been affected by the proximity of some igneous rock or other metamorphosing agent. 484.

In the N. W.  $\frac{1}{4}$ , N. E.  $\frac{1}{4}$  sec. 7, 63-8 the syenite lies under a hill of gabbro which has a bold face on the north side nearly or quite 100 feet high. This syenite is sometimes micaceous enough to be called hornblendic gneiss. It has been somewhat broken up here and the contact between it and the gabbro is not visible. The latter rock is somewhat finer near the contact with the syenite than at the top of the hill. Syenite is represented by 485: the gabbro by 486.

In the S. E.  $\frac{1}{4}$  sec. 6, 63-8 the rock is mica schist hardened by the vicinity or contact of the gabbro. The gabbro ridge runs south of the lake and really does not appear at any point on the lake shore. Samples of mica schist from the above-mentioned

locality are 487. Some of it is flinty and has very little if any mica in it.

To the northeast of the last is a knoll of fine red quartzite or syenite. It is probably part of a large intrusion in the mica schist. 488.

The mica schist in the southeast part of section six is much twisted and varies greatly in its strike and in the composition and texture of its strata. Some are hard and siliceous and others are soft and iron-stained. It is cut by numerous veins or intrusions of granite and is slightly conglomeritic in places.

#### TOWNSHIP 63-9.

On the portage trail from Snowbank lake to the Kawishiwi river gneiss and mica schist are seen in a few outcrops within three-quarters of a mile from Snowbank. About a mile from the lake the trail passes within ten feet of a bluff of gabbro which faces east. This is in the S. W.  $\frac{1}{4}$  of S. W.  $\frac{1}{4}$  sec. 11, 63-9. The rock is the regular coarse labradorite gabbro. About 200 paces south of this gabbro, on the section line between ten and eleven is found a ridge of biotite, olivine schist. This has the usual strike, N. 60° E. and dips S. 75°. It is conglomeritic in many places and bears a striking resemblance to the conglomeritic mica schist found at the southeast corner of Disappointment lake. 504.

A ridge of gabbro is again crossed 450 paces south of the N. W. corner sec. 14, 63-9. This is a high ridge with a steep bluff of the coarse light-colored gabbro on the north side. Three hundred paces farther south the rock is all "muscovado" in a great ridge. No structure or bedding of any kind is visible in it. It is simply in large hills and ridges, and is fine-grained and homogeneous in texture.

A short distance north of the "quarter-post" between sections 14 and 15 this ridge of muscovado is bounded on the south by a swamp. Along the south side of the ridge, next to the swamp, is a considerable deposit of magnetite. It is the regular coarse, dull-lustred, gabbro magnetite. The rock can not be distinguished from the gabbro nor from the muscovado either. Number 505 is the muscovado. 505 A is the magnetite.

The Kawishiwi is about 12 feet above Snowbank lake where the portage from the lake strikes it. The trail passes across and by the side of gabbro ridges for half a mile before reaching the river.

Going north on the west line of sec. 16 the gabbro disappears a short distance north of the river. The rock next north of the gabbro is the muscovado-like mica schist with the usual strike and vertical dip. It is conglomeritic a short distance farther north and is hornblendic like that on Disappointment lake. It loses its similarity to muscovado and becomes regular mica schist, though more or less gneissic and conglomeritic, about the west "quarter-post" of sec. 16. Sample is 506.

At 340 paces north of the "quarter-post" mentioned above, a swamp intervening, a ridge of diabase is encountered. This runs along the north side of the swamp in a N. E.-S. W. course. It is probably part of the same diabase eruption as that east of Disappointment lake, 507. Many fragments of porphyritic conglomerate are seen lying about on the surface at this place.

This ridge keeps on rising with a gentle slope until its summit is reached at the N. W. corner of section 16. From here the descent is gradual toward the north, but not so gradual as on the south side. The diabase is massive for some distance from the place where it was first seen. Then it begins to show a coarse schistosity and has a coarse agglomeritic appearance as in the rock at Ely, the boulders being all of greenstone and indistinctly outlined on the surface. The rock is strikingly similar to the Ely rock as far as the agglomeritic appearance goes; but is not soft and chloritic like that, nor does it appear to be calciferous. It is simply regular diabase, 508.

At 375 paces north of the southwest corner of section nine the diabase has changed from a massive rock to a fine, schistose, diabase agglomerate. The direction of the very evident schistosity as well as of the lenticular pebbles of greenstone in it, is E.  $16^{\circ}$  S. This is on the northern slope of the great diabase ridge, and the rock has been examined at many places so there is no doubt as to its being part of the same diabase. The coarse agglomerate has become a fine schistose pudding-stone and is rapidly changing into green chloritic schist toward the north. Samples of diabase conglomerate are No. 509.

This fine greenstone agglomerate continues to be exposed for some distance toward the north. The direction of the schistosity swings around to N. W. and S. E. which is the general direction of it in sections 8 and 9.

Some distance south of the east "quarter post" of sec. 8 a ridge of porphyritic rock which contains grains of vitreous quartz is encountered. It is a light colored rock and when first



seen it appears perfectly massive. It has an abrupt contact with the diabase which is also more massive at this place. The porphyry appears to run in N. W.-S. E. ridges. North of here it is seen to be mixed up in every way possible with the diabase and finally, in the N. E.  $\frac{1}{4}$ , N. W.  $\frac{1}{4}$  sec. 8, becomes the prevailing country rock.

Toward the north still farther this porphyry becomes coarsely schistose and acquires more of the green uncrystalline elements. It also loses its decidedly porphyritic aspect as the distance from the diabase ridge increases. It is slightly conglomeritic; in one place red jasper was seen in it and in another a pebble of greenstone. Nos. 510, 510 A and 510 B show these various conditions of the porphyritic rock.

The diabase continues to abound and ridges of porphyry, or porphyrel and greenstone are strangely mixed up together. In the N. E.  $\frac{1}{4}$  sec. 8 are seen large ridges of jaspilite, consisting of red and black jasper, hematite and magnetite in crumpled vertical beds running about N.  $60^{\circ}$  E. After a long and extensive examination the state of affairs seemed to be as follows: There is a large amount of this jaspilite here. Some of these lenticular masses of jasper and iron ore were traced continuously for half a mile or even more. These masses lie in the diabase and have an abrupt contact with it. Many pieces and masses of jaspilite of all sizes from that of a pea to the large ridges spoken of above are seen to be enclosed in massive or only slightly schistose diabase, not in any general line of strike, but at intervals separated from each other across the strike by various distances less than a mile.

Sometimes the diabase is quite coarse and appears more like diorite with white feldspar crystals on the surface.

In some places the porphyry approaches quite near to these jaspilite masses; but that is not to be wondered at, inasmuch as the ridges of porphyry run all through the diabase without any definite order or direction. This jaspilite is more hematitic toward the north and west where it is identical in appearance with that at Tower. Places were seen where the diabase is quite schistose at the contact with the jaspilite and even as soft and greasy feeling as the soft schists in some of the Tower mines. The beds of jaspilite are nearly as much distorted as at Tower. This diabase is seen on both sides of the iron ore and cutting across the beds. It also seems to contain fragments of the porphyry and becomes porphyritic itself in the vicinity of the



porphyry ridges. Specimens of the diabase, which is found enclosing the large and small masses of jaspilyte in the N. E.  $\frac{1}{4}$  sec. 8, are 511. Contact specimens with the jasper are 511 A. Samples of diabase containing small masses of jaspilyte are 511 B. Porphyritic diabase containing a piece of porphyry is 511 C. Samples of the soft sericitic or talcose rock are 512. This rock being so soft is always found in low places and could not be seen to be certainly part of the diabase. Sometimes the rock next to the jaspilyte is not green and does not look like diabase but is gray and somewhat schistose, 513. Samples of the jaspilyte are seen in 514.

The porphyry becomes more and more prevalent toward the N. E. "forty," sec. 8 until there is no more diabase nor jaspilyte. There is, however, a dyke of green trap that runs under Hugh Copeland's cabin in the N. W.  $\frac{1}{4}$ , N. E.  $\frac{1}{4}$  sec. 8. It is about 30 inches wide and can be traced for 200 paces or more running about north and south through the porphyry. It is not perfectly straight but curves some and is faulted in two or three places. The course of it is also interrupted at one place north of the cabin by strings and branches from the porphyry mass which make it appear as if they both were plastic about the same time. Sample of the porphyry is 515. The dyke rock is 516.

The above observations are considered to be of importance as they seem to prove beyond doubt that *the jaspilyte beds are enclosed in basic rock of igneous origin.*

This region and these beds of iron ore contain some of the most promising deposits seen during the past season. There is good reason for believing that there are valuable and extensive beds of iron ore in the northern part of this township.

The ridges of diabase and porphyry alternate southeast of Copeland's cabin. A sample of rock composed of a tenacious green mineral is 517.

In some places the diabase is agglomeritic in close proximity to the enclosed masses of jaspilyte, the diabase all around such a mass containing the forms and outlines of greenstone pebbles. There is also conglomerate closely interbedded with this diabase agglomerate and apparently of a later date. It has for a magma the earlier fine agglomerate (?). These two sometimes come into direct contact, standing side by side. No. 520. This later conglomerate contains almost exclusively fragments of the por-

phyry and of the jaspilyte. It is never very thick and generally lies between the greenstone and the porphyry.

There are occasional tendencies toward a micaceous nature in the porphyry, and a thin stratum of schist bedded by sedimentation is seen here and there, 518.

Some of the fragments of jaspilyte seen enclosed in the greenstone are perfectly white jasper or quartzite which crumbles into fine grains upon hammering, 519. This also is like the same fine granular quartz beds in the jaspilyte north of Tower.

In only one place was the iron ore and jasper seen in contact with the porphyry. At this place a bed of jasper three inches thick has porphyry on one side and diabase on the other. They come very close together in many places, but in all other cases observed there was a thin wall or flow of diabase between them.

A vertical bluff of greenstone 20 feet high was seen in one place with a thin coating of the light colored porphyry plastered over the entire face of the bluff. A contact specimen from here is 521.

In one place the coarser diabase which when weathered shows small white feldspar crystals on the surface, was cut by a small trap dyke. The coarser, older diabase is 522. The dyke rock is 522 A.

Going north on the line between sections nine and ten the first rock is seen quite near the river. This is fine-grained mica schist which may contain olivine, 523. This rock is conglomeritic in places and particularly in a small ridge not far north of the river. The small enclosed pebbles are compressed with their longer axes pointing N. W. - S. E., 523 A. There is next a ridge of diabasic mica schist, 523 B.

Some of the beds of mica schist are siliceous and felsitic and are iron-stained, 524. At 300 paces north of the S. W. corner sec. 10, there is quite a ridge of mica schist. It strikes N. W. and dips S. W. 70°. Samples showing lines and bands of sedimentation are 525. At 400 paces there is a contact between the beds of mica schist and diabase which latter has been more or less affected by the proximity of the schist and has a less massive appearance than usual. The mica schist too has been somewhat altered; but the change is abrupt and distinct between the mica schist on the S. W. and the greenstone on the N. E.

In this place therefore the mica schist has an abrupt contact with the greenstone and does not grade into it as it appeared to on the east side of Disappointment lake. The schist here seems

to have been affected by the greenstone eruption: its strike and schistosity have been bent around nearly  $90^\circ$  from the usual direction. The mica schist has been hardened and rendered more like the diabase so that upon a casual inspection the two might seem to run together. Mica schist from the contact is 526. The diabase is 527. A specimen of peculiar, dark mica schist which has gray figures and lumps like drops of mud all over the surface is 526 A.

This was not the main ridge of diabase but only a subordinate branch or large dyke of it. The mica schist and greenstone seem to have had quite a struggle for supremacy in this region; first one prevailing and then the other. The general strike is N. W. and the dip varies from S. W.  $45^\circ$  to vertical. There is a ridge of coarser diabase in the N. W.  $\frac{1}{4}$ , S. W.  $\frac{1}{4}$  sec. 10. It is quite near a contact with mica schist. 528.

In many places the mica schist is full of light gray grains of soft material which weather out and leave the surface of the rock pitted with small holes. This schist is darker and less micaceous than some of the rest, but it always conforms with the general strike and seems to be a part of the general mica schist formation. 529.

The mica schist contains thin beds of green diabasic rock which run with the other beds and are also schistose. These beds are decidedly basic and only a few inches thick, but are quite persistent and maintain their general appearance and width as far as they can be followed. 530.

Going farther north the mica schist becomes harder and more feldspathic and appears to be incipient porphyry, showing how the extensive porphyry belt north of here may be altered mica schist. 531.

Some specimens of agglomeritic diabase in which the pebbles seem to have been pasted together in a very plastic state are 532. The mica schist and incipient porphyry have also a conglomeritic structure though it is rather indistinct.

A little jaspilite is found enclosed in the greenstone in the N. W.  $\frac{1}{4}$ , N. W.  $\frac{1}{4}$  sec. 10. The diabase is softer and chloritic and possesses the coarse agglomeritic or concretionary (?) structure seen in it so often.\*

The observations made in going north on this section line simply confirm those made on the line a mile west, and demonstrate that the coarse, chloritic, schistose agglomerate is part of this

\* Report of H. V. Winchell. Fifteenth annual report, p. 404.



great diabase eruption and that the jasper and iron ore beds are contained in it.

A ridge of mica schist is again encountered just south of the quarter post between sections 3 and 4. A large exposure of this rock is found here. It is quite hard and contains a little of the diabasic rock in these beds. 533. Strike is N. 16° W.

At the N. E. corner sec. 4, the porphyry is met with, and is the same in appearance as that found in the N. E.  $\frac{1}{4}$  sec. 8. The relation between the porphyry and mica schist is not evident here, but they seem to have a more or less abrupt contact. Samples of porphyry are 534. The mica schist has been becoming more argillaceous and less micaceous. Here there is a large ridge of it in which the strata are greatly crumpled and the principal strike has been changed to N. 10° E. It here seems that the porphyry is not a part of the mica schist formation, but that it was protruded into the schist beds and caused all of this disturbance. Argillitic mica schist from here is 535.

Going west from here along the north line of sec. 4 a swamp is crossed, and on the west side is found a diabase ridge. Just west of the north quarter post of sec. 4 is more porphyry in knolls and ridges which penetrate and are surrounded by the diabase. They always have an abrupt contact. This porphyry is conglomeritic, containing felsitic and siliceous boulders a foot in diameter. Samples from the S. E.  $\frac{1}{4}$ , N. W.  $\frac{1}{4}$  sec. 4 are 536. A basaltic structure is frequently seen in the porphyry.

In the S. W.  $\frac{1}{4}$ , N. W.  $\frac{1}{4}$  sec. 4, on the ridge which lies between two small lakes is quite an exposure of red jasper and hematite. This is seen to be in beds of various thickness up to four or five feet, which do not have a common strike. Some strata, enclosed in diabase, strike east and west; while other beds only a few rods away strike E. 30° S. The beds all stand vertical and *are very little crumpled*, 537.

The diabase has a tendency to become coarsely schistose where it lies in contact with the iron and jasper, but farther away it is very hard, tough and massive. It has also a coarse agglomeritic structure, very indistinct at this precise spot, but quite noticeable a short distance east of here, and is chloritic. Nos. 538-538 C represent these rocks.\*

\* An analysis of this green rock, 538 B, made by Mr. C. F. Sidener shows, as was expected, that it is basic. The full record is as follows:

Silica, $\text{SiO}_2$ .....	50.47 per cent.
Alumina, $\text{Al}_2\text{O}_3$ .....	18.45 per cent.



There is also some black jasper and magnetite at this place enclosed in the greenstone in the same manner. The beds are thicker and seem to contain purer ore than the hematite beds. No. 539.

Between the N. W. corner sec. 4 and the east quarter post sec. 8 a decided change takes place. The diabase around the south side and west end of the small lake on the north line of sec. 4 assumes a schistose structure which becomes finer and more universal toward the southwest. At first it is a fine agglomeritic diabase schist; then it becomes more and more siliceous until it is flinty and actually resembles the Knife lake rock. From this place, where the rock was found to be very siliceous, a set of specimens was procured from every outcrop south as far as the E. quarter post sec. 8. This siliceous schist stands in vertical beds which strike N. W.-S. E., and sometimes swing around to N.-S. The rock becomes more and more flinty until at the N. E. corner sec. 8 we have the regular siliceous schist of Knife lake. From here south to the E. quarter post sec. 8, this siliceous schist is seen to grade into the porphyry which was found there before. In one or two places the siliceous schist seemed to be going back to diabase; and ridges of diabasic schist and agglomerate were crossed on this line; but they seem to be part of the intruded diabase which comes into contact with this porphyry farther south. Thus we have diabasic schist and even massive diabase becoming siliceous and even flinty and then porphyritic, and finally coming into contact again with another part of itself farther south. Nos. 540-540 J show this transition.

Going east from the N. E. corner sec. 8, mica schist is met with at less than a quarter of a mile. It has an abrupt contact with porphyry. 541.

The mica schist seen in this township is fine-grained, almost always argillaceous, poor in mica, which is always in very small glistening scales, and generally hornblendic.

Sesquioxide of iron, $\text{Fe}_2\text{O}_3$ .....	2.13 per cent.
Protoxide of iron, $\text{FeO}$ .....	7.74 per cent.
Lime, $\text{CaO}$ .....	6.61 per cent.
Magnesia, $\text{MgO}$ .....	6.90 per cent.
Potassa, $\text{K}_2\text{O}$ .....	.30 per cent.
Soda $\text{Na}_2\text{O}$ .....	2.58 per cent.
Phosphoric acid, $\text{P}_2\text{O}_5$ .....	traces.
Water, $\text{H}_2\text{O}$ .....	2.34 per cent.
	<hr/> 97.52 per cent.

The mica schist formation becomes hornblendic and massive in the N. W.  $\frac{1}{4}$ , N. E.  $\frac{1}{4}$  sec. 9. Fine dark syenite from same place is 542.

On the north side of the Kawishiwi river, on the line between sections 19 and 20 the mica schist is only two rods wide. On the north side of it is the coarse diabase agglomerate.

#### PRAIRIE RIVER FALLS.

A visit was made at the end of the season to Pokegama falls and the region of Prairie River falls for the sake of comparison with and verification of notes made previously.

No new facts were noticed, the report of last year containing all of the points which were noted this season.

Some work is being done east of the lower falls by Minneapolis parties who are searching for iron ore; although no large body of ore has yet been encountered, the prospect is encouraging.

Specimens of magnetic ore were seen at Grand Rapids which came from the property of Mr. Kearny situated about 45 miles north of Grand Rapids in Township 61-24. It seems to belong to the Keewatin and is reported to exist in paying quantities. The locality was not visited.

Mr. Chas. F. Howe, of Duluth, has explored for iron ore in Minnesota for several seasons and is very well posted on the geology of iron ores. He reports the magnetitic quartzite of the Huronian outcropping in Twp. 59-18. It has the usual dip of about  $10^{\circ}$  to the S. S. E. and lies near the syenite which is north of it.

The facts and observations given in scattered detail in the foregoing notes if amplified and discussed at length with all of the careful consideration which they merit would far exceed the limits assigned to this report. But a brief allusion to some points which seem to furnish clues to the solution of a few of the unsettled problems in the geology of this region may be made here without attempting anything like a full discussion or even mention of all the theories upon which the facts before us have a bearing.

*The lowest or oldest formation* to which these notes make any reference is probably the syenite and gneiss ridge constituting the Giant's range. Observations on this rock were made at various points between Hinsdale, on the Duluth and Iron Range railroad,

and Snowbank lake: also at a few localities in the vicinity on what is supposed to be the northeastward continuation of this range. The general characteristics of the rock of this ridge are quite persistent. The vertical foliation, the unusually large grains of bluish quartz which it contains and the general aspect of the orthoclase serve to remind an observer in the Gunflint region of the same features in the rock southwest of Birch lake. Mica, however, frequently replaces hornblende or *vice versa*; and sometimes both are present. Near the surface and for fifteen or twenty feet below, this rock has a reddish or pink color; but at a greater depth it is gray.

A coarse conglomeritic structure is noted in the syenite-gneiss of this range at Hinsdale. Lenticular masses of dark hornblende rock are seen at all depths in the gray rock at the quarries. These masses are generally more than eight inches in length, and the direction of their longer axes is vertical or nearly so. There is sometimes a foliation or schistosity in these inclusions, and this also is vertical.

A series of vertical crystalline schists is generally found next the older crystallines in other parts of this region; but north and south of the Giant's range at Hinsdale are found exposures of the sericitic or chloritic schists of the Keewatin so close to the syenite as to make it seem improbable that any crystalline schists intervene between them here. If the high ridge is the middle of an anticlinal, as seems to be indicated by the presence of the vertical Keewatin schists on the south side of the ridge, having the same strike as those on the north, what has become of the crystalline schists which lie next above the granites and syenites? Were they so highly metamorphosed and affected by pressure to such an extent that they were incorporated into the more gneissoid rock beneath them, or were they not a widespread and universal deposit? Were there elevated portions of the sea-bottom which were not covered by the sediments from which have resulted the crystalline schists, but which were later covered by the sediments of the Keewatin age? Considering this ridge to be the back-bone of an anticlinal the latter supposition seems more probable.

If this be not an anticlinal how can the presence of such an extensive range of crystalline rock in the midst of greenish, chloritic, more or less argillaceous and siliceous schists be accounted for? If the vertical foliation be evidence of some former bedding structure, the only way to explain it seems to



be on the supposition that a portion of these schists themselves were metamorphosed by some unusual disturbance along the line of this range, either by the proximity of some great vent below or intense pressure at this place combined with chemical and hydrothermal forces.

The next formation is that already mentioned, the crystalline schist or Vermilion series. I wish to call attention to the fact that in Twp. 63-9 this series of rocks is found to be conglomeritic over a wide area, and has been rendered hard and porphyritic by some adjacent eruption, probably that great diabase outburst of the Keewatin age. Boulders of a large variety of rocks are seen enclosed in the mica schist around Disappointment lake. This fact alone serves to distinguish it from the diabasic agglomerates in which all of the pebbles, with hardly an exception, are of greenstone and jaspilyte.\*

In connection with the crystalline schists "muscovado" should be mentioned. It seems probable that this term has been employed in the 15th and 16th reports of this survey, to designate the rotted granular condition of two or three different rocks. Dr. Alexander Winchell has applied it to a rock which he identifies with the Animike. It seems to have been used also to describe fine decayed gabbro as well as an altered condition of gneiss and the mica and hornblende schists.

As far as my observation goes it has been found quite easy to recognize decayed, rusted Animike and fine rotted gabbro such as is frequently found at the northern edge of the gabbro overflow. But in several localities, notably on the south shore of Disappointment lake, there are found large exposures of a granular, yellowish-brown rock which does not possess any distinct signs of bedding or schistosity and which yields to a blow of a hammer much as semi-hardened putty would. It contains fine scales of biotite and grains of feldspar and olivine. It lies at the north edge of the gabbro in rounded knolls which resemble gabbro hills at a little distance, and when its direct connection with the surrounding rock is obscured it can not be recognized as belonging to any of the usual formations of the region nor as being anything but "muscovado."

On the south shore of Disappointment lake there is a great deal of this rock. To the south of it are masses of olivinitic

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\* In his report on the Lake of the Woods, Geol. of Can. CC., Mr. A. C. Lawson says that the agglomerates of that region grade into conglomerates along the strike of the formation. This has not been observed to be the case in Minnesota.



iron ore standing in nearly vertical beds, capped with fine, decayed gabbro and having coarse labradorite gabbro on the south of it. Fortunately the lake shore affords a nearly continuous exposure of this rock in both directions in the line of strike. It was here traced very carefully, on two different occasions, and was found to pass by insensible gradations into mica schist which became more and more micaceous and typical as the distance from the gabbro increased. This mica schist is the northeastern extension of the crystalline schists which are found north of the Kawishiwi river in townships 63-9 and 63-10, and have been followed continuously from there to this lake. The syenite of the Giant's range is known to have formed the northern shore of the Animike ocean. This range is low and narrow at this place and the Animike evidently was deposited on top of the syenite and up to or perhaps upon some of the mica schist which lies to the north of the syenite. Then came the gabbro eruption and overflow and with it a crumpling of the strata and uptilting of the Animike beds. The gabbro also altered the mica schist where it lay upon it, to muscovado, destroying the schistosity and bedding and even altering the mineral constituents of the rock, heating them so that they formed new combinations, the iron and magnesia of the biotite combining to a large extent with the free quartz to make olivine, though there are some minute scales of biotite left. The same explanation of muscovado appears to answer in other places where it was seen. It seems, therefore, that the term "muscovado" is rather an ambiguous one but would be more appropriately applied to mica schist altered by gabbro than to iron-bearing Animike rock.

Conformable with the crystalline schists are the grauwackes, chloritic schists, diabasic schists and siliceous schists of the Keewatin series. The foregoing notes give numerous detailed facts which it was my good fortune to observe in localities particularly rich in instructive geological phenomena. These facts have a decided bearing on the nature and origin of the Keewatin group and the iron ores and associated jaspilytes which are enclosed in it.

In townships 63-9 and 64-8 immense ridges of diabase and basic agglomerates were found. These form a part of the Keewatin formation. They pass conformably into the siliceous and argillaceous schists of that series, and become themselves soft, greenish chloritic schist which retains but slight resemblance to

the massive eruptive rock into which they grade and of which they are a part.

In the *American Geologist* for January, 1889, the writer gave a short resumé of the conclusions which had been reached as to the origin of these basic portions of the Keewatin. The observations which forced him to the conclusions there stated were made but a short time before; and when the article was written the fact that Mr. A. C. Lawson of the Canadian geological survey had described similar rocks in the Keewatin of the Lake of the Woods and had termed those aggregations in which the boulders are of the same material as the magma, "agglomerates" was unknown to him. Mr. Lawson also had previously offered an explanation similar to that given by the writer, of the surprising gradations observed between eruptive and fragmental rocks, viz., an alternation of "volcanic ejectamenta (both flows and tuffs) and aqueous sedimentation."

Dr. G. M. Dawson had also presented the same views and says in speaking of similar rocks in the vicinity of the Lake of the Woods, "Volcanic action would appear to offer the most reasonable explanation of their origin and distribution." \*

These observations appear to parallelize our green chloritic and diabasic schists and agglomerates very closely with those of Mr. Lawson's original Keewatin. We find in them the same lenticular, basic fragments, the same "concretionary?" and associated amygdaloidal structures and the same transitions into siliceous, fragmental rocks.

It is gratifying to know that the views of these experienced geologists confirm the conclusions mentioned above. The opinion primarily held by the geologists of the Minnesota survey, with the possible exception of N. H. Winchell, and which view is still maintained by Dr. A. Winchell in the 16th Annual report, was that these rocks were of sedimentary origin and that the semi-crystalline, diabasic character was the result of intense metamorphism. The view now held is not wholly in conflict with that. It admits that portions of the Keewatin formation were purely sedimentary; but claims that the larger part of it consists of a mixture of eruptive and sedimentary materials, and is in many places extensively and wholly igneous.

In the opinion of the writer this has considerable bearing on the question of the origin of the jaspilytes embraced in the green schists of the Keewatin. They are supposed to be of some

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\* Geol. and Resources, Forty-ninth Parallel, p. 52.

sedimentary formation which was broken up and involved in the eruptions of Keewatin age. The masses of jaspilyte are angular and have abrupt contacts with the basic schists; they are highly siliceous and are of all sizes and shapes. When the masses are large they are usually in vertical position and somewhat elongated in the direction of the schistose structure in the surrounding rock. Examples of a precisely similar disruption of a sedimentary formation and its involution in an eruptive ejection are given in the foregoing pages in referring to the masses of Huronian quartzite and magnetite enclosed in the gabbro. In several places chalcedonic quartz similar to that in the jaspilyte of the Keewatin, was found as part of the Animike. This fact is an indication of the fragmental nature of the jaspilyte; as they cannot be separated from each other,—if one is sedimentary the other must be—and there is not much doubt that that in the Animike is.

The most recent fragmental formation found in northeastern Minnesota is the Huronian. Many observations were made upon a quartzite belonging to this formation which seems to lie above the Animike slates and is the rock which contains the non-titaniferous magnetite. This quartzite has been called Animike quartzite: but seems to lie above the Animike proper. It is perfectly conformable with the slates and sometimes grades into rock which is feldspathic and argillaceous rather than siliceous. It was observed to lie unconformably upon the rock of the Giant's range in two or three places. The most interesting contact observed was where this rock—the semi-siliceous, feldspathic Huronian—is seen to lie unconformably upon the vertical Keewatin beds. This was announced to be the case by Dr. A. Winchell in the 16th report but no actual contacts were mentioned. Considering the greenstone upon which the Animike was found to lie west of Gunflint lake as Keewatin—which it undoubtedly is—three or more fine contacts of the Animike upon the Keewatin are reported in these notes. The significance of this fact has been pointed out before.

A peculiar transition was found south of the Giant's range, in sec. 13, 60-13, where the Animike is seen to grade downward into the syenite. The character of this transition, however, does not seem to be metamorphic, but rather fragmental. There seems to have been a certain amount of the loose, crystalline material which had resulted from the decay and erosion of the syenite lying on top of the solid rock in the bed of the sea. The



Animike sediments were deposited upon and around this syenite stuff. At first the material was mainly crystalline, the sediments forming but a very small part of the whole and only filling the cracks and cavities. A few feet farther up the materials were about evenly divided, the fine detritus filling large spaces between the elevated portions of the larger pieces of syenite. As the sediments increased and grew deeper the crystalline material was completely buried and no traces of the underlying rock were left except here and there a small fragment of syenite or an orthoclase crystal which came rolling in from above and settled down on the sediments. Sometimes these crystals are quite perfect and look strangely out of place in a rock which is so plainly sedimentary and so little altered.

As a rule there is a decided difference in the texture and appearance of the Animike and Keewatin rocks; the former having a smaller proportion of feldspathic and greenish, basic material, and usually containing more quartz and some magnetite. The slates too of the Animike are darker and appear to be carbonaceous; while the slates and schists of the Keewatin are argillaceous and hydromicaceous. These differences are so general that a person who has spent a season comparing and examining these rocks can usually tell at a glance to which formation a specimen belongs. In the vicinity of the east end of Gunflint lake, however, the Animike has a marked resemblance to the Keewatin and it is difficult to distinguish them. They both have somewhat the appearance of grauwacke and are less schistose and slaty than usual. They are of a dark gray color, have a rough surface on fresh fracture and show fewer bands of sedimentation than elsewhere. The Animike, however, contains fine grains of magnetite disseminated through it with a tendency toward a banded arrangement, and the Keewatin has none.

Although the Huronian quartzite with which is associated the non-titaniferous magnetite lies unconformably upon the syenite of the Giant's range it is believed to lie above the Animike slates and to rest conformably upon them. The rock which was deposited at the border of the ocean upon the syenite seems to have been more siliceous than those portions of the same strata which were farther from the shore. Thus the rock which lies directly upon the syenite would be a quartzite and would pass into the less acidic rocks farther south. This condition of things is believed to have been observed in Twp. 60-13. Still there is



probably an extensive quartzite which is later than the Animike and which lies directly upon the syenite because the land was slowly becoming more submerged and the sediments kept accumulating and extending farther and farther over the range of rock which constituted the northern limit to the ocean and the strata formed in its depths. The dip of the quartzite corresponds with that of the slates wherever seen, and although the latter were not seen at any place underlying the former, yet their relative positions and mutual relations seem to indicate that they do so.

The gabbro has been so fully discussed in previous reports of this survey that it is necessary to say but a few words concerning it. The fact that it is found to embrace large fragments of the Huronian quartzite and slates proves it to be of later origin. It is intersected by dykes of greenstone which are of still more recent date,—perhaps of the Cupriferous age, as that is said by the State Geologist in the Tenth annual report, p. 112, to be of more recent date than the gabbro. However, the appearance of these rocks in sec. 35, 58-6 gave me the impression that the gabbro is on top of the Cupriferous and hence more recent.

A coarse basaltic structure was seen in the gabbro on the south side of Tucker lake. There was also an appearance of sedimentary structure in the gabbro in N. W.  $\frac{1}{4}$  sec. 2, 64-3, caused by parallel bands of magnetite several feet in length. It shows how one may be deceived by similar banded structure in other places.

Coarse hornblende, believed to be the largest ever found in this state, was found in the gabbro in the S. E.  $\frac{1}{4}$  sec. 25, 63-10. Crystals six inches long were obtained. Many seen in the same place were even larger.

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LIST OF SPECIMENS COLLECTED BY H. V. WINCHELL DURING  
THE SUMMER OF 1888.

354. Hydrated hematite. John Mallmann's working. Sec. 29, 59-14.

354 A. Gray, feldspathic rock, to which is attached a pebble(?) of hematite. Same locality.

355. Gray rock containing magnetite. Short distance west of last.

355 A. Gray rock containing limonite. From main shaft at same place.

356. Magnetitic chrysolyte. 400 paces east of the W.  $\frac{1}{4}$  post sec. 10, 60-12.

357. Syenite. S. W.  $\frac{1}{4}$  sec. 8, 60-12.

358. Olivinitic magnetite. One-fourth mile south of N. W. corner sec. 17, 60-12.

359. Greenish, magnetitic, olivinitic quartzite. S. W.  $\frac{1}{4}$ , S. W.  $\frac{1}{4}$  sec. 17, 60-12.

360. Dark, siliceous magnetite. N. E. corner sec. 19, 60-12.

361. Slaty, carbonaceous rock. Same locality.

362. Stratified magnetite and quartzite or siliceous schist. N. W.  $\frac{1}{4}$ , N. E.  $\frac{1}{4}$  sec. 19, 60-12.

363. Magnetite. N. W.  $\frac{1}{4}$ , N. E.  $\frac{1}{4}$  sec. 19, 60-12.

364. Quartz conglomerate with a green matrix. From boulders seen east of Iron lake. N. W.  $\frac{1}{4}$  sec. 24, 60-13.

365. Hornblendic Animike slate. A short distance north of last locality.

366. Samples showing the transition from Animike to the syenite of the Giant's range. North end of Iron lake, S. W.  $\frac{1}{4}$  sec. 13, 60-13.

367. Greenish Animike rock containing a felsitic boulder. Same locality.

368. Coarse, micaceous syenite, N. E.  $\frac{1}{4}$  sec. 14, 60-13.

369. Black, magnetitic rock, S. W. side of Iron lake. N. E.  $\frac{1}{4}$  sec. 23, 60-13.

370. Tough, dark magnetitic rock. N. W.  $\frac{1}{4}$  sec. 35, 60-13.

371. Reddish-gray quartzite. Found in fragments on the trail in N. W.  $\frac{1}{4}$  sec. 32, 60-13.

372. Samples from the bottom of the Animike where it passes into and rests upon the syenite. South of the trail. S. W.  $\frac{1}{4}$ , N. W.  $\frac{1}{4}$  sec. 32, 60-13.

373. Black, carbonaceous slate rock containing magnetite. S. W.  $\frac{1}{4}$ , S. W.  $\frac{1}{4}$  sec. 32, 60-13. From a shaft.

374. Grayish rock containing bands of magnetite. A little N. W. of last.

374 A. Reddish, jaspery rock. Same locality.

375. Weathered samples of magnetitic rock. S. W.  $\frac{1}{4}$  sec. 31, 60-13.

376. Sample of reddish, decomposed jaspery rock from top of a shaft in N. E.  $\frac{1}{4}$  sec. 11, 59-14.

376 A. Hematitic rock from bottom of the same shaft.

377. Feldspathic Keewatin schists. N. W.  $\frac{1}{4}$  sec. 11, 59-14.
378. Feldspathic, gray, Keewatin schist, S. E. "forty" sec. 11, 59-14.
379. Olivinitic, magnetitic rock. From a shaft in N. W.  $\frac{1}{4}$  sec. 14, 59-14.
380. Dark, slaty rock containing needle-shaped crystals of hornblende and bands of black jasper. Sec. 22, 59-14.
381. Grayish, soft, sericitic schist, S. E.  $\frac{1}{4}$  sec. 17, 59-14.
382. Gray syenite of the Giant's range, Hinsdale.
- 382 A. Red syenite containing decayed hornblende. Found near seams or faults in the syenite at Hinsdale.
383. Hornblende schist from included boulder-forms in the syenite, Hinsdale.
384. Fine, gray granite, found cutting the syenite at Hinsdale.
385. Dark, red, decomposed syenite. Three miles north of the Giant's range on the railroad.
386. Gabbro. Sec. 5, 58-14. In a railroad cut three-fourths of a mile north of Beaver creek.
387. Dark, silico-argillaceous rock apparently carbonaceous. N. E.  $\frac{1}{4}$ , S. W.  $\frac{1}{4}$  sec. 9, 58-14. On Partridge river.
388. Reddish, hematitic, quartzose rock. From a shaft in N. E.  $\frac{1}{4}$ , S. E.  $\frac{1}{4}$  sec. 11, 59-14.
389. Feldspathic Keewatin schist. Near the centre of S. E.  $\frac{1}{4}$  sec. 11, 59-14.
- 389 A. Quartz from veins in last. Containing talc.
390. Dark, carbonaceous (?) rock supposed to be Keewatin. Same locality.
391. Felsitic siliceous schist. N. E.  $\frac{1}{4}$  sec. 15, 59-14.
392. Magnetic, olivinitic iron ore, about 200 paces southeast from last and 40 feet higher.
393. Magnetic iron ore. N. W.  $\frac{1}{4}$ , N. W.  $\frac{1}{4}$  sec. 14, 59-14.
394. Pinkish quartzyte. Found in angular fragments on the trail in Twp. 60-13.
395. Black magnetic sand. Birch lake, S. W.  $\frac{1}{4}$ , S. E.  $\frac{1}{4}$  sec. 32, 61-12.
396. Fine, muscovado-like gabbro. N. E.  $\frac{1}{4}$  sec. 26, 61-12.
- 396 A. Specimen of a boulder (?) enclosed in last.
397. Animike or Huronian quartzyte. S. E.  $\frac{1}{4}$ , N. E.  $\frac{1}{4}$  sec. 26, 61-12.
- 397 A. Hornblendic quartzyte. Same locality as last.
- 397 B. Quartzyte containing unknown mineral. Same place.
- 397 C. Magnetitic quartzyte. Same locality.

398. Stratified quartzite and magnetite. S. E.  $\frac{1}{4}$  sec. 26, 61-12.
399. Olivinitic quartzite. E.  $\frac{1}{2}$ , N. W.  $\frac{1}{4}$  sec. 35, 61-12.
- 399 A. Coarse quartzite and magnetite. Same locality.
400. Syenite, pink and rather coarse. S. E.  $\frac{1}{4}$ , N. E.  $\frac{1}{4}$  sec. 35, 61-12.
401. Quartzite, containing much magnetite. Same locality.
402. Hornblendic, olivinitic magnetite rock. N. E.  $\frac{1}{4}$ , S. W.  $\frac{1}{4}$  sec. 35, 61-12.
403. Coarse quartzite and fine chrysolyte. S. W. "forty," sec. 35, 61-12.
404. Chrysolyte. S. W.  $\frac{1}{4}$  sec. 35, 61-12.
405. Olivine bearing magnetitic quartzite. N.  $\frac{1}{2}$ , S. E.  $\frac{1}{4}$  sec. 24, 61-12.
- 405 A. Hornblendic samples of last.
- 405 B. "Slickensides." Same locality.
406. Hard, hornblendic Animike found lying upon syenite. S. E.  $\frac{1}{4}$ , N. E.  $\frac{1}{4}$  sec. 35, 61-12.
407. Magnetite and quartzite in banded alternation. S. E.  $\frac{1}{4}$  sec. 30, 62-10.
408. Granular olivinitic rock. Same locality.
409. Fine grained olivinitic magnetite. Same locality.
410. Titaniferous (?) magnetite. Same locality.
411. Hornblendic olivinitic quartzite. Same locality.
412. Coarse gabbro. S. E.  $\frac{1}{4}$ , N. E.  $\frac{1}{4}$ , sec. 36, 63-10.
- 412 A. Coarse hornblende and labradorite. Same locality.
413. Altered Animike from fragments enclosed in the gabbro. Same locality as 412.
414. Coarse magnetite. Same place.
415. Very coarse hornblende. From the gabbro. S. E.  $\frac{1}{4}$ , S. E.  $\frac{1}{4}$  sec. 25, 63-10.
- 416 and 416 A to 416 E represent a transition from sericitic schist to granite.
417. Micaceous hornblendic schist. Same locality.
418. Biotitic hornblendic schist. N. W. forty sec. 4, 63-12.
419. Calciferous sericite schist. N. W.  $\frac{1}{4}$  sec. 4, 62-12.
420. Gabbro from lake Isabelle. N. W.  $\frac{1}{4}$ , S. E.  $\frac{1}{4}$  sec. 35, 62-8.
- 420 A. Gray, fine granular rock contained in last.
421. Pebbles from a point just east of last.
422. Dyke rock. S. W.  $\frac{1}{4}$ , S. E.  $\frac{1}{4}$  sec. 36, 62-8.
423. Fine, brown gabbro containing biotite. East of lake



Isabelle in T. 62-7.

424. Gray labradorite rock. Two miles up Swamp-lake river from lake Isabelle.

424 A. Gray gabbro with a streak of red in it. Same place.

424 B. Red gabbro. Same locality as last two.

425.

425 A. } Specimens illustrating a change from gabbro to dark,  
425 B. } tough hornblendic rock.

425 C. }

426. Hornblendic gabbro. East of the north end of lake Harriet.

427. Gabbro. From a small island near the south end of Nine Mile lake.

428. Gabbro. From west side of Crooked lake.

429. Trap rock. Sec. 15, 59-6. West of the narrows.

430. Fine grained, olivinitic gabbro. West side of Nine Mile lake.

431. Gabbro. Sec. 35, 58-6.

432. Red, impure felsyte. East of last a few rods.

433. Siliceous Keewatin schist. About 40 rods up the creek which enters the east end of Gunflint lake from the northeast.

434. Sericitic schist. Farther up the creek on east side.

435. Reddish, jaspery Animike rock. Bed of same creek.

436. Dark, ferruginous conglomerate. About one-fourth mile up the creek.

437. Greenish, sericitic schist. East of last a few rods.

438. Animike from near a contact with Keewatin. Bed of same creek.

439. Keewatin rock from same place.

440. Magnetitic gabbro. N. E.  $\frac{1}{4}$ , N. W.  $\frac{1}{4}$  sec. 2, 64-3.

441. Dioritic, magnetitic gabbro. S. W.  $\frac{1}{4}$ , N. W.  $\frac{1}{4}$  sec. 2, 64-3.

442. Titaniferous magnetite. S. E.  $\frac{1}{4}$ , N. W.  $\frac{1}{4}$  sec. 2, 64-3.

443. Black carbonaceous slate. N. W.  $\frac{1}{4}$  sec. 35, 65-3.

444. Greenstone. Found lying on top of 443 (H).

445. Porphyry or porphyrel. Loose mass at same place.

445 A. Trap found stuck fast to 445.

446. Very strongly magnetic iron ore. N. W.  $\frac{1}{4}$ , N. W.  $\frac{1}{4}$  sec. 23, 65-4.

447 and 447 A to 447 E illustrate a transition from Black Animike slate to greenstone. N. E.  $\frac{1}{4}$  sec. 25, 65-4.

447 F. Porphyritic trap rock. Same locality.

- 447 G. Dyke rock. Same locality.
448. Brecciated Animike slate. Same locality.
449. Quartz conglomerate not seen in place. From sec. 28, 65-4.
450. Magnetite. N. W.  $\frac{1}{4}$  sec. 28, 65-4.
451. Biotitic altered greenstone. Same locality.
452. Diamond drill cores. Same locality.
- 452 A. Pyritous quartzite from bottom of Animike at same place.
453. Drillings from about one-eighth mile south of the "camp" in sec. 28, in 65-4.
454. Quartzite and magnetite. N. W.  $\frac{1}{4}$  sec. 35, 65-5.
455. Animike from next to a contact with underlying greenstone. N. W.  $\frac{1}{4}$  sec. 35, 65-5.
- 455 A. Animike rock from a similar contact 150 paces west of last.
- 456 and 456 A to 456 C are samples of the greenstone from the eastern contact taken in order receding from the line of contact.
- 456 D is a sample of greenstone from the western contact.
457. Conglomerate greenstone. 250 paces east of last.
458. Fine, crystalline, grayish-brown rock composed of plagioclase, mica, olivine and magnetite. North of last in a high ridge.
458. A. Coarse, hornblendic gabbro. S. line sec. 12, 64-6.
459. Gabbro. Gabemichigama lake. N. E.  $\frac{1}{4}$  sec. 6, 64-5.
460. Modified Animike. South side of the island in N. W.  $\frac{1}{4}$  sec. 6, 64-5.
461. Magnetitic gabbro. S. E.  $\frac{1}{4}$  sec. 1, 64-6.
462. Decomposed gray quartzite. Under the gabbro at same locality.
463. Conglomeritic grauwacke. N. W.  $\frac{1}{4}$  sec. 33, 66-6. South of Otter Track lake.
- 463 A. Rock resembling magma of Ogishke conglomerate. Same locality.
- 464, 464 A and 464 B illustrate the passage of grauwacke into flint.
465. Magnetitic siliceous schist. N. W.  $\frac{1}{4}$ , N. W.  $\frac{1}{4}$  sec. 33, 66-6.
466. Magnetitic jaspery rock. On hill east of last.
- 466 A. Contact specimen between 466 and siliceous greenish Keewatin schist. Same locality.
467. Amygdaloidal calciferous rock from boulders enclosed in

green chloritic schist. North side of Otter Track lake. N. W.  $\frac{1}{4}$  sec. 27, 66-6, as in Minn.

467. A. From similar boulders not amygdaloidal. Same place.

468. Calciferous breccia found immediately surrounding the boulder forms.

469. Jaspilite. Short distance east of last.

469. A. Magnetite. Same locality.

470. Green schist from near a contact with 469.

470. A. Jasper from same contact.

471. Feldspathic, semi-crystalline schist. From the corner marked "R 333" and "R 337" about half a mile north of Otter Track lake.

472. Coarsely porphyritic green rock. North side of a lake which lies on the north side of Otter Track lake.

473 and 473 A. Keewatin rock turning into red and black jasper. North of Otter Track lake.

473 B. Magnetite in green schist. Same locality.

474. Jasper and magnetite. Same locality.

475. Average sample of the non-schistose Keewatin from north of Otter Track lake.

476. Argillite. N. W.  $\frac{1}{4}$ , S. E.  $\frac{1}{4}$  sec. 2, 64-8. Lake Vira.

477. Fine mica schist. S. W.  $\frac{1}{4}$ , S. W.  $\frac{1}{4}$  sec. 32, 64-8. Between Snowbank and Disappointment lakes.

478. Red, fine syenite. Cutting last.

479. Mica schist. S. E.  $\frac{1}{4}$  Sec. 32, 64-8.

480. Conglomeritic mica schist. Same locality.

480. A. Red granite from intrusions in 480.

481. Trap rock from a dyke cutting 480.

482. Mica schist. S. E.  $\frac{1}{4}$ , N. E.  $\frac{1}{4}$  sec. 6, 63-8. Round lake.

483. Syenite gneiss. N. W.  $\frac{1}{4}$ , N. E.  $\frac{1}{4}$  sec. 6, 63-8. Round lake.

484. Dark siliceous syenite. West side of Round lake.

485. Micaceous syenite. N. W.  $\frac{1}{4}$ , N. E.  $\frac{1}{4}$  sec. 7, 63-8. Round lake.

486. Gabbro. Found lying on 485.

487. Hardened mica schist. S. E.  $\frac{1}{4}$  sec. 6, 63-8.

488. Fine red syenite. Intrusion in last.

489. Finely conglomeritic mica schist. N. E.  $\frac{1}{4}$  sec. 5, 63-8. Disappointment lake.

490, 490 A and 490 B represent a transition from mica schist to muscovado. N. E.  $\frac{1}{4}$ , S. W.  $\frac{1}{4}$  sec. 4, 63-8.

- 490 C. Mottled muscovado. Same locality.  
491. Olivinitic magnetite and quartzyte. Same place.  
492. Fine gabbro found lying upon 491.  
493. Coarse labradorite gabbro. South of last.  
493 A. Titaniferous (?) magnetite. Found in last.  
494. Feldspathic, muscovado-like mica schist. N. E.  $\frac{1}{4}$  sec. 4, 63-8.  
495. Fine, micaceous syenite. S. W.  $\frac{1}{4}$  sec. 34, 64-8.  
496. Conglomeritic mica schist. N. E.  $\frac{1}{4}$  sec. 33, 64-8.  
497. Diabasic conglomerate. From N. W.  $\frac{1}{4}$  sec. 34 and S. W.  $\frac{1}{4}$  sec. 27, 64-8.  
498. Diabasic schist. Same locality.  
499. Diabase. Same locality.  
500. Gneissic schist from lake shore having a foliation from N. W. to S. E., N. W.  $\frac{1}{4}$  sec. 34, 64-8.  
501. Biotitic trap. S. W.  $\frac{1}{4}$  sec. 27, 64-8.  
502. Siliceous greenstone. N. E.  $\frac{1}{4}$ , S. W.  $\frac{1}{4}$  sec. 27, 64-8.  
503. Porphyritic mica schist conglomerate. S. W.  $\frac{1}{4}$ , N. W.  $\frac{1}{4}$  sec. 27, 64-8.  
504. Conglomeritic mica schist. S. W.  $\frac{1}{4}$  sec. 11, 63-9.  
505. Muscovado. North of quarter post between sections 14 and 15, 63-9.  
505 A. Titaniferous (?) magnetite. Same locality.  
506. Fine, gray, hornblendic mica schist. S. W.  $\frac{1}{4}$ , N. W.  $\frac{1}{4}$  sec. 16, 63-9.  
507. Diabase, 340 paces north of W. quarter post sec. 16, 63-9.  
508. Diabase. N. W. corner sec. 16, 63-9.  
509. Fine conglomeritic diabase. 375 paces north of the S. W. corner sec. 9, 63-9.  
510. Porphyrelle. N. E.  $\frac{1}{4}$  sec. 8, 63-9.  
510 A. Porphyrelle containing red jasper. Same locality.  
510 B. Porphyrelle containing greenstone. Same locality.  
511. Diabasic rock found enclosing jaspilyte. N. E.  $\frac{1}{4}$  sec. 8, 63-9.  
511 A. Contact specimens of diabase and jaspilyte. Same locality.  
511 B. Diabase containing fragments of jaspilyte. Same locality.  
511 C. Porphyritic diabase containing fragments of porphyrelle. Same locality.  
512. Soft talcose rock. Same general locality.



513. Gray schistose rock found in contact with jaspilyte. Same locality.
514. Jaspilyte (jasper and magnetite). Same locality.
515. Porphyrelle. N. W.  $\frac{1}{4}$ , N. E.  $\frac{1}{4}$  sec. 8, 63-9.
516. Trap rock. Cutting last.
517. Rotted diabase. Southwest of last some distance.
518. Micaceous diabasic schist. Same general locality.
519. White, crumbling jasper. Sec. 8, 63-9.
520. Dark, ancient conglomerate in contact with the porphyrelloid conglomerate. Sec. 8, 63-9.
521. Contact specimen. Diabase and porphyrelle. Sec. 8, 63-9.
522. Coarser diabase than usual, having white crystals of feldspar on weathered surfaces.
- 522 A. Fine diabase cutting 522.
523. Fine grained olivinitic mica schist. S. W. forty sec. 10, 63-9.
- 523 A. Conglomeritic mica schist. Same locality.
- 523 B. Diabasic mica schist. North of last.
524. Rusty, decomposed mica schist. Same locality.
525. Mica schist showing stratification. At 300 paces north of the S. W. corner sec. 10, 63-9.
526. Mica schist from a contact between it and diabase. 100 paces north of last.
527. Diabase from same contact.
528. Diabase. N. W.  $\frac{1}{4}$ , S. W.  $\frac{1}{4}$  sec. 10, 63-9.
529. Dark, pitted mica schist. Same locality.
530. Diabasic strata in mica schist. Same locality.
531. Porphyritic mica schist. North of last.
532. Diabase conglomerate. Same general locality.
533. Mica schist, somewhat diabasic. Just south of the quarter post between secs. 3 and 4, 63-9.
534. Porphyrelle. N. E. corner sec. 4, 63-9.
535. Argillitic mica schist. Same locality.
536. Porphyrelloid conglomerate. S. E.  $\frac{1}{4}$ , N. W.  $\frac{1}{4}$  sec. 4, 63-9.
537. Jaspilyte. S. W.  $\frac{1}{4}$ , N. W.  $\frac{1}{4}$  sec. 4, 63-9.
538. Diabase from contact with Jaspilyte. Same locality as last.
- 538 A and 538 B are from a distance of five and ten feet respectively from this contact.

538 C. A phase of the diabase which does not look so basic. Same place.

539. Black jasper and magnetite. Same locality.

Nos. 540 and 540 A to 540 J illustrate a transition from fine diabasie schist through siliceous argillyte to porphyrelle which takes place between the N. W. corner sec. 4 and the E. quarter post sec. 8, 63-9.

541. Mica schist. N. W.  $\frac{1}{4}$ , N. W.  $\frac{1}{4}$  sec. 9, 63-9.

542. Fine, dark syenite. N. W.  $\frac{1}{4}$ , N. E.  $\frac{1}{4}$  sec. 9, 63-9.

#### ELEVATIONS DETERMINED BY ANEROID BAROMETER BY H. V. WINCHELL.

	Ft. above L. Superior.
Devil's Track river at the crossing of the county road north of Grand	
Marais.....	1000
Top of "Pine Mountain," 12 miles from the lake.....	1550
South Brulé river at the crossing of county road.....	1000
Birch lake, Twp. 65-2.....	1220
Duncan's lake.....	1205
Rose or Mud lake.....	1060
South lake.....	1085
North lake.....	1085
Gunflint lake.....	1080
Loon lake.....	1275
Mayhew lake.....	1385
Lake Vira is about the same hight as Knife lake.	
Ensign lake is 40 feet lower than Knife lake.	
Snowbank lake is 45 feet higher than Knife lake.	
Disappointment lake is 120 ft. higher than Knife lake.	
Round lake is 90 feet higher than Knife lake.	
Kawishiwi river is 57 feet higher than Knife lake where the portage from	
Snowbank lake strikes it. N. W. $\frac{1}{4}$ sec. 15, 63-9.	

#### CONTACTS OBSERVED.

Animike on the syenite of the Giant's range, north of Iron lake; also west of Gunflint lake, N. W.  $\frac{1}{4}$  sec. 23, 65-4; also S. E.  $\frac{1}{4}$ , N. E.  $\frac{1}{4}$  sec. 35, 61-12.

Gabbro on Animike, N. E.  $\frac{1}{4}$  sec. 26, 61-12 south of Birch lake; also south side of Disappointment lake. Gabbro on syenite, N. W.  $\frac{1}{4}$  sec. 24, 61-12; also N. E.  $\frac{1}{4}$  sec. 7, 63-8. Fine-grained gabbro or trap on Animike slate, east end of Gunflint lake, and around Loon lake. Animike on Keewatin, creek bed at east end of Gunflint lake; also N. W.  $\frac{1}{4}$  sec. 35, 65-5; also N. E.  $\frac{1}{4}$  sec. 25, 65-4.

Trap rock on porphyrel, Loon lake; also sec. 8, 63-9. Jaspilyte and porphyrel, Twp. 63-9, many places. Jaspilyte and diabase, many places in Twp. 63-9. Mica schist and diabase, S. W.  $\frac{1}{4}$  sec. 10, 63-9. Mica schist and porphyrel, N. E. corner sec. 4, 63-9.

## TRANSITIONS OBSERVED.

From Animike to syenite. North of Iron lake.

From Keewatin hydromica schist to granite. N. E.  $\frac{1}{4}$  sec. 9, 63-12.

From black Animike slate upward to fine gabbro or trap. South side of Loon lake.

From black Animike slate downward to trap. N. E.  $\frac{1}{4}$  sec. 25, 65-4.

From mica schist to "muscovado" and back to mica schist. N. E.  $\frac{1}{4}$  sec. 4, 63-8.

From mica schist to diabase. N. W.  $\frac{1}{4}$  sec. 34, 64-8.

From diabase through diabasic agglomerate to chloritic schist. Twp. 63-9.

From diabasic schist through siliceous schist to porphyrel. Twp. 63-9.

## CONGLOMERITIC STRUCTURE OBSERVED IN

Keewatin, in schistose, porphyrelloid and diabasic portions.

Animike, in various places.

Syenite of Giant's range, at Hinsdale.

Mica schist and porphyrelloid mica schist. S. E.  $\frac{1}{4}$  sec. 32, 64-8.

Gabbro, containing fragments of Animike. N. E.  $\frac{1}{4}$  sec. 26, 61-12.





REPORT OF ULY. S. GRANT.



#### IV.

### REPORT OF GEOLOGICAL OBSERVATIONS MADE IN NORTHEASTERN MINNESOTA DURING THE SUMMER OF 1888.

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*By Uly. S. Grant.*

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#### I. GENERAL STATEMENT.

During the latter part of June, all of July, and the greater part of August a party was employed in collecting sets, of twenty-five specimens each, of the typical rocks of northeastern Minnesota. Besides the writer, the party consisted of Mr. A. D. Meeds, of the University, and two Indians, Charley and Nick Sucker, from Vermilion lake. The traveling was done entirely by canoe, as is usual in this region. The town of Ely, which is now the northern terminus of the Duluth and Iron Range railroad, was used as a supply point, and from here three trips were made eastward and south-eastward,—each trip taking about three weeks. Most of the country from Vermilion lake east to Gunflint lake, explored by the survey during the last two summers, was passed over, and rock samples collected from various localities designated by Prof. N. H. Winchell. The samples are of museum size—three by four inches—and bear the numbers given by Prof. Winchell in the tenth, fifteenth and sixteenth annual reports of the survey. In all forty-five sets, or over eleven hundred specimens, were collected; these, together with those collected in 1886 and 1887, form quite a complete series of typical rocks of that part of the state lying north of lake Superior. The specimens were shipped to Minneapolis and are now in the rooms of the survey,—but as yet they have not been unpacked and labeled.

While collecting the rock samples some attention was paid to the geology; thus a few additional facts were noted, and several

places, not before visited by the survey, were examined. But these observations were not very extensive, as the time was limited and the main object was to collect the samples wanted. This fact, together with the inexperience of the writer in the line of geology, will perhaps account for discrepancies in the following pages. The only place where any detailed observations were made was on the north shore of Gunflint lake while trying to discover the western extension of the belt of hornblende schists (Vermilion series) which lie between the vertical earthy schists (Kewatin) on the south and the gneiss on the north.

During the latter part of August, all of September and the first half of October the writer was engaged, under the direction of Mr. H. V. Winchell, in examining reported outcrops of iron ore. While thus employed, two separate trips were made,—one from Gunflint lake south to Brulé lake, and one along the Kawishiwi river in T. 63-7 and 62-9. A few notes, concerning the general geology of the country thus passed over, are given; but it should be remembered that the main object of these trips was to examine into the richness and extent of the iron ore outcrops. Notes on a few of the lakes passed through on a trip from Kawishiwi lake south to lake Superior are also given; but a full account of this trip will be found in the report of Mr. H. V. Winchell.

Owing to the numerous heavy spring rains, all the lakes and rivers were very high,—from two to five feet higher than during the summers of 1886 and 1887; this rendered examination of rock exposures along the lake shores more difficult than formerly, as in many cases the water extended back over the rocky shores to the soil. The insect pests (black-flies and mosquitoes) were also very numerous and troublesome.

The Canadian side of the boundary lakes and rivers from Gunflint lake to Ottertrack lake, seems to have been surveyed during the last year.

The rock samples, which illustrate the following notes, are numbered from 1 up to 298, the letter G being placed on each specimen, after the number. The figures are green,—Paris green and shellac dissolved in alcohol being used.

The township, section and quarter section, where each specimen was found, is given. The township (in this report) is always north and the range west of the fourth principal meridian, Minnesota.

Appended to this report will be found (1) a brief summary of



observations, (2) a list, with notes, of the typical rocks of which 25 specimens were collected, (3) a table of barometric elevations and (4) a catalogue of rock samples to illustrate the writer's notes.

Magnetic bearings were taken roughly in the field; these have not been corrected either for general or local variations.

## II. GEOLOGICAL NOTES.

### OTTERTRACK LAKE.

This is one of the boundary lakes, and extends north-east and south-west in T. 66-6. On the north shore of the lake in N. E.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 27, T. 66-6 (if the Minnesota sections were extended northward to the Canadian shore) is a cliff about forty feet high; this cliff is composed of magnetic iron slates banded with red and black; the red bands are jasper and the black ones are composed mostly of magnetite. The banding is twisted and bent in every direction, but is almost always in a vertical plane. Mr. J. F. Conniff of Duluth tells me that on the south side of the lake in the N.  $\frac{1}{4}$  of sec. 33 (80 rods south of the lake shore), there is an exposure of these vertical iron slates; he says they appear in the form of a "vein," from four to twelve feet wide, and strike east and west. No. 1 and No. 2 are specimens he gave me from this locality; No. 3 is from the cliff on the north shore of the lake. The first outcrop on the shore west of these slates is represented by No. 4, and the first east of them by No. 5, both of which are graywacke-like rocks. A full account of this place will be found in the report of Mr. H. V. Winchell; also see the sixteenth annual report, p. 210, for the geology of Ottertrack lake.

### GUNFLINT LAKE AND VICINITY.

This lake lies on the boundary in the north part of T. 65-3, and extends eastward into T. 65-2; it also touches the eastern side of T. 65-4.

On the small island in S. E.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 13, T. 65-4, were found five elongated pieces of a dark schist, which is composed principally of hornblende and feldspar, the latter weathering pinkish; these pieces are in the syenite of which the island is composed; the largest piece was five feet long and seven inches

wide; the long axis of each piece extends in the same direction, — i. e. N. 85° W. (Mag.). All the pieces, except one, thin out into wedge-shaped ends. No. 6 represents the syenite, and No. 7 the schist. The largest of these pieces is shown in Fig. 1.

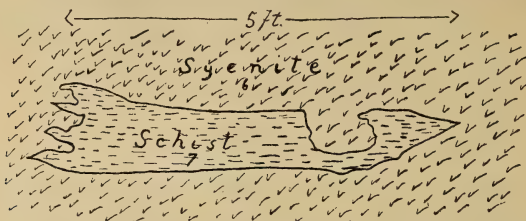


Fig. 1. Hornblende schist inclosed in syenite, Gunflint lake.

*Sections north of Gunflint lake.* Three sections were made north from the lake near the centre of the northern shore, the object being to discover what becomes of the hornblende schist belt (the Vermilion series of the survey) that was found north of the lake near its eastern end in 1887. If this belt continues in the same strike as there seen, it should appear again in Blackfly bay north of the narrows of the lake; but no trace of it is here found. The measurements in these sections are only roughly estimated, the ground being too rough and too much covered with underbrush to allow pacing. The location of the observations is given as accurately as possible, supposing the section lines of the Minnesota townships to be extended to the Canadian side. Fig. 2 shows the relations of this belt of crystalline schists and of the Kewatin slates to the syenitic gneiss. For the description of this belt of hornblende schists the reader is referred to the sixteenth annual report, pages 68-77, 262-6, 337, and the map on page 255.

**SECTION I:** North from the lake shore a little west of the line between secs. 14 and 15, T. 65-3. This would be directly north of the east end of the island in sec. 15—the only island in this part of the lake.

The first rock exposed is a vertical sericitic schist, on the lake shore; it extends east and west about 200 yards; this is the most westerly, but one, exposure of vertical schists on Gunflint lake. This rock is represented by No. 11; the exposure continues north 100 feet, and rises 8 feet above the water. After passing a swamp 250 feet wide, a hill rises 60 feet above the lake; this hill is composed of schist or slate similar to No. 11,

but it is growing harder and more flinty (No. 12); this hill is 200 feet across. Beyond is another swamp about 200 feet wide, and then rises a second ridge, 400 feet in width; the first exposure is of a fine porphyrelloid rock (No. 13) with small crystals of white feldspar; these crystals are arranged more or less in layers corresponding to the strike. The rest of the hill is composed of alternating beds of black slate (No. 16) and porphyrelloid rock represented by No. 13; the latter rock varies from that in which the feldspar crystals are quite conspicuous,  $\frac{1}{8}$  inch or more in diameter (No. 14), to that in which they are quite small (No. 15). Near the top of the hill and lying in a small depression is a mass of dark trap (No. 17); the contact between the trap and slate was covered by soil. Nearer still to the top of the hill are two dikes, one and four feet in width; these dikes run parallel with the beds of slate and are exposed for over 20 feet; in the larger are fragments of baked slate; and the outer portion of this dike is very much finer-grained (No. 18) than the inner (No. 19); Nos. 18 and 19 seem to be about the same as No. 17. On the summit of the hill in the porphyrelloid schist is an elongated mass of a soft schistose rock (No. 20) running N. 70° W. (Mag.), diagonally across the bedding; this rock was traced ten feet before disappearing under the soil; the schist is in no wise changed near the contact, and near by it is bent around some smaller lenticular masses of the same rock (No. 20).

Going north for the next half mile the following country is passed over:—

Swamp;—no exposures.

Ridge, about 200 feet above the lake, composed of black slate and fine porphyrelloid schist. On the north side of this hill gabbro, similar to that on the lake shore, was found.

Rock covered.

Very hard black slate (No. 21), containing specks of iron pyrites; also porphyrelloid schist.

Rock covered.

Black slate.

Gabbro; contact with slate not seen.

Rock covered.

Gabbro represented by No. 22.

Rock covered for 50 feet.

Black slate, No. 23; strike N. 85° E. (Mag.).

Rock covered for about 150 yards, and ground rapidly descending toward the north.



At the foot of the descent was a rather coarse porphyrelloid schist (No. 24) largely composed of a soft mineral, probably sericite.

Now comes a rather level, almost swampy, place with a few small hills; it extends for about a third of a mile, as follows:—

Rock covered; swamp, about 1,000 feet.

Black slate.

Rock covered.

Micaceous schist (No. 25); this is probably in place.

Rocks covered for about 300 feet.

One hundred feet of a heavy black hornblende schist; vertical, strike N.85° E. (Mag.). At the south side of this exposure the rock is represented by No. 26; this seems to be composed of hornblende with some feldspar; the schistose structure is very pronounced. This rock soon grades into No. 27, which is heavier and has better developed hornblende crystals; the schistose structure is not very evident, except on the weathered surfaces.

The rock was now covered for about 200 feet, and then came an exposure of a very hard, dark, fine-grained mica-schist (No. 28.). This exposure was 20 feet wide (N. and S.) and 40 feet long; strike E. and W. (Mag.); vertical.

After another swamp, 400 feet wide, came an exposure, 50 feet wide, of vertical schist; this consisted of parallel bands of several kinds represented by Nos. 29, 30, 31 and 32. No. 29 is light colored, composed mostly of feldspar, which weathers pinkish, and a small amount of mica; bands of this were of all widths up to one foot; this rock made up about one-half of the exposure. No. 30 is darker and contains much hornblende. No. 31 contains still more hornblende; bands of this and the preceding were not over six inches wide. No. 32 is a very dark, fine, mica-schist; no bands of this over two and a half inches in width were seen. Samples could be found all the way between No. 29 and No. 32, but the outlines of the different bands were very distinct. The bands would often run out to needle-points and disappear.

Beyond another swamp, about 400 feet wide, was a small hill, covered by soil, but on removing the thin layer of soil the solid rock was exposed; this rock (No. 33) is composed of hornblende and feldspar; it is quite firm and on fresh surfaces appears rather massive, but on the weathered surfaces the schistose structure is plainly seen; this schistosity is vertical and strikes N. 85° E. (Mag.). The rock contained a few small areas in which the hornblende seemed to be collected in great quantity.



Beyond the last exposure was a swamp extending northward; no hills could be seen for three-fourths of a mile.

Taking the sum of the foregoing distances, roughly estimated, we have a section, straight across the strike of the slates and schists, of 6,790 feet, or somewhat over a mile and a quarter. This would give the belt of earthy schists and slates (Kewatin) a width of 4,810 feet; and the crystalline schist belt (hornblende and mica-schists), extending north from No. 26 (No. 25 not being included, as it was not positively determined to be in place), would have a width of 1,220 feet. The width of the latter belt is probably greater than 1,220 feet, as the northern limit may not have been reached and there are 670 feet between the slates and the southern outcrop of crystalline schists where no exposures were seen.

SECTION II: This section runs directly north from the lake, and is about three-fourths of a mile west of section I, or very near the line between secs. 15 and 16, if this line were extended northward from the Minnesota side. For the first half mile from the lake there is a well-cut surveyor's line.

At the lake shore there are Animike slate fragments, and just beyond this and 15 feet above the water is a ridge of gabbro, which is about 200 feet across. A swamp extends for one-half mile from the shore; beyond this swamp is about 700 feet of dry, level ground with no rock exposures. Then comes a low ridge, 50 feet across, on which are many granite boulders and a few gabbro fragments, but no rock was seen in place. After crossing 500 feet of lower ground we came to a small ridge of gneiss (No. 34) composed of quartz and feldspar, with some hornblende and a small quantity of a light yellow mineral.

After passing over two other small ridges of gneiss there comes a range of large hills of the same gneiss; from the first appearance of this rock to the range of large hills is about 600 feet. The gneissic structure can be plainly seen on the weathered surfaces; it is vertical and runs about E. and W. (Mag.). This range is from 40 to 75 feet above the swamp, and extends eastwardly,—the southern front being precipitous and running N. 55° E. (Mag.); south of it is a valley surrounded by hills; the location is shown in Fig. 2.

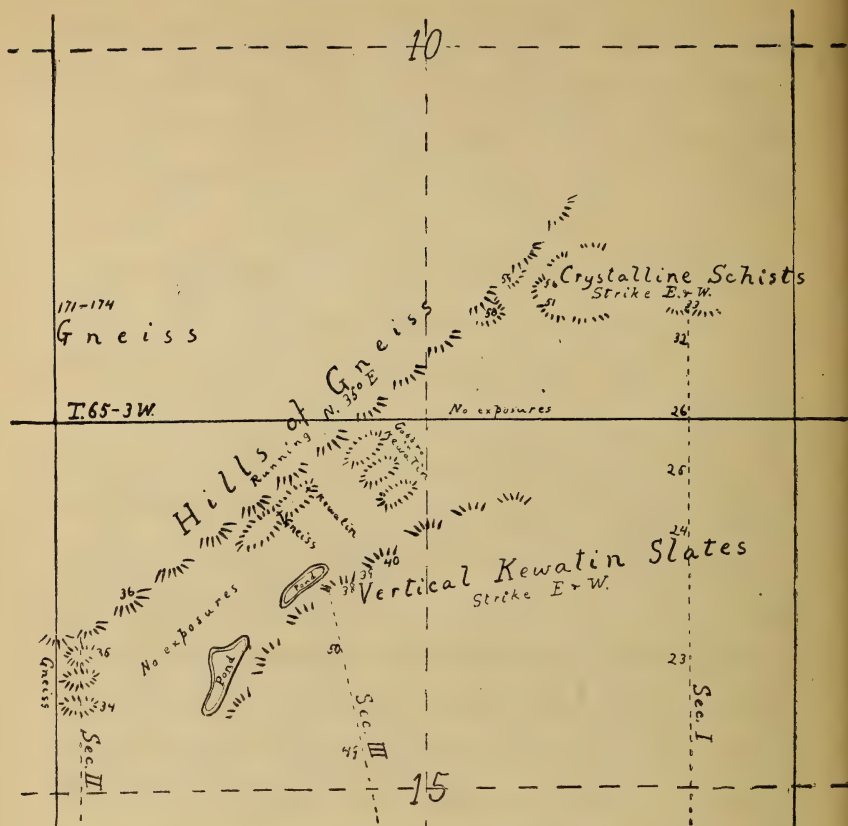


Fig. 2. Sketch showing the relation of the crystalline schists (Vermilion series) and Kewatin slates to the gneiss north of Gunflint lake.

Several pieces of micaceous schist were found in this gneiss; they were lenticular in shape and ran with the gneissic structure. The largest piece of schist was 10 feet long and 18 inches wide, and one end was irregular instead of running out to a point; No. 35 is from this piece.

A short distance east of the first observed gneiss is a trap dike, 20 feet wide, running N. 83° E. (Mag.) through the gneiss hills; this dike was traced for over 200 feet. The trap contained a few scattered crystals of feldspar, some of which are a quarter of an inch long; this rock is represented by No. 36. A mass, 3 feet in diameter, of trap quite rich in magnetite (No. 37) was found in this dike.

South of this range of gneiss hills is another range of hills made of Kewatin slates. At the place marked 38 in Fig. 2 the slates dip northward about  $80^{\circ}$ ; the strike of all the slates is E. and W. (Mag.). Here the slate (No. 38) is interbedded with porphyrel (No. 39). About 100 feet east of this there is a dike of a soft schistose rock (No. 40) running parallel with the slate and porphyrel; this dike is 4 feet wide and was traced for 25 feet; it had split and inclosed a mass of the porphyrel (No. 42) which seems to have been changed by heat; the porphyrel at the contact has the same appearance as the inclosed mass. A part of the dike is much finer-grained than the rest, — this is shown by No. 41. This dike rock seems to have changed to a micaceous schist; the schistose structure runs with the length of the dike.

Extending from the slate hills to the gneiss range are three low hills composed of vertical slate, on top of which is gabbro; here the slate had been somewhat bent and broken, but the general strike was E. and W. (Mag.). Just west of these are two low hills running parallel with the gneiss range; near the eastern end of these hills is an exposure of vertical slate, striking E. and W. (Mag.); and between the two hills, and almost directly in the strike of the slate, is an exposure of gneiss. The last mentioned exposure of slate was within 100 feet of the gneiss hills. (See Fig. 2.)

Here we find a range of gneiss hills directly in the strike of the Kewatin slates; and the slate comes up to the gneiss, thus leaving no room for the belt of crystalline schists; subsequently the crystalline schists were found a short distance northeast of this place.

SECTION III: About  $15^{\circ}$  west of north, from the end of Kewatin bay (see map on page 255 of 16th An. Rep.) to the gneiss in the N. W.  $\frac{1}{4}$  of sec. 15.

Forty feet from the lake is a hill, 200 feet wide, rising 40 feet above the water; the rock here is a vertical reddish-weathering schist (No. 47), striking N.  $80^{\circ}$  E. (Mag.). Six hundred feet beyond this is another hill 300 feet wide; this is composed of vertical black flinty slate (No. 48) which weathers whitish; the strike on the south side of the hill is N.  $78^{\circ}$  E. (Mag.), and on the north side it is N.  $82^{\circ}$  E. (Mag.). After crossing a swamp we come to another hill about half a mile from the lake; here is a rather light-colored sericitic schist (No. 49) striking N.  $85^{\circ}$  E. (Mag.). About 600 feet beyond this is a large mass of gabbro (No. 50), very much decayed. And a few rods further are verti-

cal slates striking E. and W. (Mag.). This brings us to the valley shown in Fig. 2.

Crossing over to the gneiss hills on the north of this valley and following them northeast for about 1,000 feet, we come to a large hill which is 400 feet wide (N. and S.); on the western and north-western sides of this hill are numerous outcrops of vertical crystalline schists, striking E. and W. (Mag.). The specimens collected here are No. 51 to No. 56; these were found interbedded in the same manner as described in section I. No. 51 is a hornblende schist with a large quantity of feldspar. No. 52 has more hornblende. No. 53 is a fine dark mica-schist. Nos. 54, 55, and 56 are composed mostly of hornblende which is in quite large crystals. Directly west of this hill of crystalline schists is the gneiss range, and the outcrops on the lower ridges of this range are within 150 to 200 feet of the crystalline schists. One hundred and fifty feet W. S.-W. of 51 (Fig. 2) there is an outcrop of reddish syenite (No. 57), and 40 feet north of No. 57 the syenite is represented by No. 58; No. 57 does not show any decided gneissic structure, but this structure is very evident in No. 58; it is vertical and runs N.  $85^{\circ}$  E. (Mag.); No. 58A shows this very well. Two hundred feet from the schists and directly in the strike, the gneiss (No. 59) is again seen; the gneiss of the range of hills at this place is represented by this specimen.

The range of gneiss hills here extends northeastwardly and outcrops of gneiss can be seen for a quarter of a mile in that direction. The exact contact between the schists and gneiss could not be found.

Later in the summer, while at Gunflint lake, another trip was made to the locality described above. From the last mentioned exposure of crystalline schist I followed west over the gneiss range for nearly a mile and a half; thence south half a mile, and also north for a short distance; all the rock seen (there were many exposures) was the gneiss with the gneissic structure vertical and running nearly E. and W. At only one place was there any other rock seen; this was about three-fourths of a mile west of the schists; here the gneiss held many small pieces of dark hornblendic rock represented by Nos. 170, 171, and 172. No. 170 is a dark, rather fine micaceous schist. No. 171 is coarser and shows no schistose structure. No. 172 is still coarse, have large crystals of hornblende; this rock is very similar to Nos. 27, 55, and 56. All of these specimens seem to be the same as the rock composing the crystalline schists. The pieces are mostly



lenticular in shape, having the long axis east and west, but some were angular; they are collected quite thickly in a rather distinct area; on one side they disappear within ten inches, thus making a rather well defined line between the patch holding the foreign pieces and the rest of the gneiss; the other side of this patch is covered by soil, but 15 feet beyond the gneiss appears again. The rock in between the fragments contains no quartz (No. 173), but this rock gradually passes into the ordinary gneiss (No. 174) which contains large grains of quartz. This occurrence of foreign pieces in the gneiss much resembles the "conglomeritic syenite" of Saganaga lake described by Dr. Alexander Winchell in the sixteenth annual report, pages 219 and 334; also in the *American Geologist*, vol. III, No. 3, p. 153.

The facts noted in these three sections may be summarized as follows:

The crystalline schists show no evidences of having been twisted and bent,—the strike is quite constant and continues so up to within 200 feet of the gneiss; no outcrops were seen between this and the gneiss, low ground intervening. The slates in one place near the gneiss are somewhat crumpled, but this is only for a short distance and may have been caused by the gabbro which is found at that place. The crystalline schists (Vermilion series) and the slates (Kewatin) are cut across by a range of syenite gneiss hills which run N. 55° E. (Mag.). This syenite seems to be the same macroscopically as that, into which the crystalline schists pass conformably a few miles further east. The belt of crystalline schists, if continued in their strike would appear again, either on Gunflint lake north of the "narrows" or on the boundary river flowing north from the lake; but the schists are not seen here; all the rock seen for a number of miles north of the line between secs. 18 and 19, T. 65-3, along the lake and river shores (except a small area on the east side of Blackfly bay, which is Animike) is syenite, and there is no trace of the schists, unless, perhaps, it be a very few lenticular pieces of hornblende schist scattered in the syenite,—but these are found elsewhere in the syenite, far removed from any quantity of similar rock. From the facts noted it seems that the syenite has been pushed over or has flowed over the crystalline schists, or that there was a fault running N. E. and S. W. and the schist beds on the west side of this line have been pushed southwestwardly and now lie under the lake, or even further south than that. The situation of the rocks as shown by these sections is given in Fig. 2.

*Iron location at Chub lake.* This is in the N. E.  $\frac{1}{4}$  of sec. 29, T. 65-4, and was visited in 1887 (see sixteenth annual report, pages 82 to 86). Since September, 1887, there seems to have been no working in the opening into the bluff on the north shore of the lake; No. 44 is a fair sample of the iron ore found at this place. A few rods west of this there is a steam engine and a large quantity of drill pipe. A diamond drill was worked here during the winter of 1887-8 by Mr. Millar of Grand Marais. The drill has gone down through the Pewabic quartzite into the greenstone. A few pieces of the drill core (No. 45) were lying about; all of these seemed to be quartzite, which in some places contained bands of a dark mineral, probably hornblende.

*First falls north of Gunflint lake.* These falls are in the boundary river in the N. E.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 13, T. 65-4. The rock making the falls is the syenite gneiss (No. 62) of the region, with the gneissic structure running No. 80° E. (Mag.). On the Canadian side of the river is a diabase dike running N. 5° W. (Mag.); this is first seen at the waters edge on the upper (south) side of the falls. The dike rock is fairly represented by No. 61, but in some places it is finer grained, as shown by No. 61 A. After running north about 50 feet the dike suddenly ends,

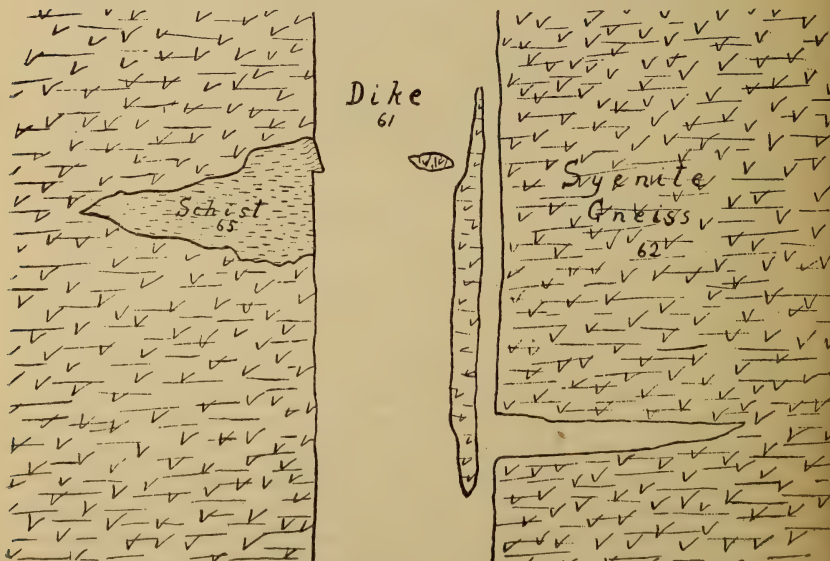


Fig. 3. Diabase dike in the syenite at the falls of the Boundary river, N. E.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec 13, T. 65-4.

but a few feet east of this it is seen again and was traced northward for about 150 feet; here the rock contains more of a yellowish-green mineral, as is shown by No. 63; and in some places the surface is pitted (shown by No. 64) by the decay of one of the mineral constituents.

From this dike a spur, four inches wide, runs out into the syenite for four feet and ends in a point (see Fig. 3). Here is a piece of the syenite in the dike; this piece is eight feet long and four inches wide; the gneissic structure is parallel to that of the syenite through which the dike cuts. There is also a small lenticular piece of syenite in the dike, but in this the gneissic structure is at right angles to the other. A mass of hornblende schist (No. 65) is inclosed in the syenite, and one end of it is in contact with the dike, while the other end runs to a point; the schistose structure runs with the gneissic structure of the surrounding rock, but at one point (A, Fig. 3) it is slightly bent. By the firmness with which the piece of schist is connected with the syenite and by the looseness of its joint with the dike one concludes that the schist was in the syenite before the dike cut it; there is no part of the piece of schist on the other side of the dike. Several other smaller, lenticular pieces of hornblende schist, resembling the one above described and in no way connected with the dike, were found in the syenite near by.

#### OGISHKE-MUNCIE LAKE.

This lake lies in secs. 13, 23, 24, 26, and 27 of T. 65-6. The geology of its shores has been described in the former reports of the survey, but a few additional notes from one place are here given.

The place where these notes were taken is on the southeast shore of the lake, opposite the north end of the small island which lies just north of the narrows in sec. 24; or in the S. E.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 24. At the water's edge is a gray quartzite (No. 76), probably the same as the gray quartzite in the section given on page 371 of the fifteenth annual report; no bedding was seen in this quartzite. A few feet from the shore are some vertical black slates (No. 77), striking N. 40° E. (Mag.); the contact between the slates and quartzite was very distinct, and in one place the quartzite extended across the strike of the slates. On the shore a few feet east of this place the quartzite held a bed of slate about one foot wide and striking in the same direction as the other slates; on one side the slate bed by gradual



change passed into the quartzite, while on the other side the two were separated by a sharp line. These black slates contained many siliceous bands (shown in the specimens collected) which sometimes are an inch in width. No. 78 is from one of these bands; this seems to be a gritty sandstone with some calcareous matter in it; it effervesces slightly with cold hydrochloric acid. Going from the lake these bands increase in size and frequency and the black slate gradually disappears. The rock then grades through Nos. 79, 80, and 81 to No. 82 which contains some quartz grains but is chiefly made up of calcareous or dolomitic matter. The last four specimens were taken in a distance of fifteen feet; the rock all weathered with a vertical schistose structure which ran parallel to the strike of the black slate,—i. e. N. 40° E. (Mag.). Three feet beyond No. 82 the conglomerate (No. 83) occurred; the contact between the two was covered; the conglomerate seems to contain some of the dolomitic matter. The distance from the lake shore to the conglomerate was not more than thirty feet.

#### BIRCH LAKE.

This lake extends through the western part of T. 61-11, and the southern part of T. 61-12. During the summer of 1886 some observations were made along the Dunka river (see the fifteenth annual report, page 340), but there was not time to visit the high ridge south of the lake in secs. 7, 8, and 9, T. 60-12, and trace it eastward to the river; consequently the writer was instructed to examine this locality. The high ridge, which is made up of syenite, was visited by Mr. H. V. Winchell, and a full account of it can be found in his report. The notes here given were taken along the trail that runs south from the lake.

The mouth of Dunka river is near the centre of sec. 33, T. 61-12; the river is canoeable for about half a mile from the mouth; at the first rapids there is a trail running south. This trail crosses the river in the S. W.  $\frac{1}{4}$  of sec. 10, T. 60-12; here the river flows over gabbro (No. 117) which contains some biotite. In one small area (about ten feet square) on the surface of the gabbro there are numerous, narrow dark bands; these are brought out very plainly by unequal weathering. The bands are parallel and vertical, running N. 35° W. (Mag.). Nos. 118 and 118A show these bands; the latter specimen was taken from a loose piece. About half a mile south of this place are many gabbro fragments (No. 119) which evidently came from rock in place



near by. At the next crossing (S. W.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 15) there are also some large gabbro fragments (No. 120). The river at this place flows through a swamp and no rock is exposed. Between the two crossings the trail is in many places covered with fallen trees and is difficult to follow.

Just west of the crossing in sec. 10 there is a low drift ridge; this runs a little south of west; it was followed one-fourth of a mile, where it turns more to the south and seems to disappear. A swamp extends westward from this hill, and about half a mile west of the crossing there is a low ridge, ten feet high and 300 feet long, running N.  $20^{\circ}$  E. This ridge is composed of a dark heavy quartzite with bands of magnetite; the banding is quite regular and parallel and gives the rock a decidedly bedded appearance. The ridge runs with the strike of the quartzite. The dip is S.  $20^{\circ}$  E. at an angle of about  $30^{\circ}$  (the direction of the dip is only estimated, as the needle was much disturbed). The specimens collected here are No. 115. This rock is probably the same as the olivinitic iron (No. 116) found on the trail in the N. W.  $\frac{1}{4}$  of sec. 10 and mentioned on page 341 of the fifteenth annual report. What I have spoken of as a quartzite is probably composed largely of olivine. The rock is a part of the Animike formation.

#### KAWISHIWI RIVER.

*In T. 63-9.* From the little bay in the S. W.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 15, T. 63-9 there is a trail running northeast to the quarter post between secs. 14 and 15. On the shore the ordinary gabbro (No. 132) was found; it here held a few grains of magnetite. A quarter of a mile from the shore the trail crosses several small exposures of iron ore; these are surrounded by the gabbro; the ore is magnetite represented by No. 133, which was taken from the first of these ore exposures.

About sixty yards northwest of the quarter post between secs. 14 and 15 is a hill composed of a fine-grained rock (No. 134), which seems to be what the survey has called "muscovado." The east side of the hill is rather steep and here is some more of the magnetite (No. 135); this seems to lie under the muscovado, as it is exposed all along the base of the hill (about 250 feet) and just above and within ten feet of it the muscovado occurs in place. The contact between the two was not found. This outcrop of ore seems to be almost pure magnetite, but it occurs in

the gabbro and very probably contains quite a large per cent of titanium, as all the gabbro ores do, and so would be comparatively worthless. The ore is exposed for about 250 feet and the exposure is ten feet high; the iron seems to extend under the hill indefinitely. The specimens collected fairly represent this ore.

After reaching the quarter post between secs. 14 and 15 the trail runs north on the section line to the northwest corner of sec. 14 and then east one mile, and then north on the line between secs. 11 and 12 to Snowbank lake. There are numerous exposures of rock, but it is all the ordinary gabbro. At one place a few small pieces of magnetite were seen in the gabbro. Iron was reported just west of the quarter post between secs. 11 and 12, but after search in this locality none was discovered.

Mr. Wm. Diarmid who has a claim in the N.  $\frac{1}{2}$  of S. W.  $\frac{1}{4}$  sec. 3, T. 63-9, says that there is an outcrop of magnetite in the gabbro near the quarter post between secs. 13 and 14, T. 63-9; also one in the S. E.  $\frac{1}{4}$  of sec. 7, T. 63-8. He also mentioned outcrops of jasper in the N. E.  $\frac{1}{4}$  of sec. 8, T. 63-9 and in the N. W.  $\frac{1}{4}$  of sec. 4. These localities were not visited by the writer, but Mr. H. V. Winchell examined the jasper in T. 63-9 later in the season.

*South of Mishiwishwi lake.* The Indians apply this name to the lake, which the survey called Bald Eagle lake in the fifteenth annual report; the lake lies mostly in secs. 25, 26, and 36 of T. 62-10. A river flows into the southeastern corner of the lake, and about a mile from the mouth of the river, or in the N. W.  $\frac{1}{4}$  of sec. 5, T. 61-9, there is a stream flowing into the river from the south; this stream is canoeable for about a mile and a half. On the right bank of the stream and an eighth of a mile south of its mouth is a hill of gabbro, which appears to be the west end of a low ridge running east and west. This gabbro (No. 136) has a gneissic structure, which is vertical and runs N. 15° W. (Mag.), making the rock break more readily in this direction than in any other. In some places the gabbro lies in horizontal beds from two to four inches thick. The rock seems to be almost entirely composed of a feldspar (probably labradorite) and a mineral which is probably olivine; this, when not decayed, is of a yellowish-green color, but its hardness is below 6. A few rods further south, on the left bank of the stream is a small hill of the same gabbro showing the gneissic structure running in the same direction,—i. e. N. 15° W. (Mag.).

About a third of a mile south of the last mentioned hill is another gabbro hill on the left bank of the stream. The rock here is similar in composition to that above described, but is coarser grained and does not have the gneissic structure seen in the other; but many of the weathered surfaces have a peculiar banding, which is caused by the feldspar crystals being aggregated in certain lines that are vertical and run N.  $10^{\circ}$  W. (Mag.). No. 138 is a fair sample of the gabbro from this locality, while No. 137 shows the banding. The olivine, as it decays, loses its yellowish-green color and becomes darker (sometimes having a deep red color, like garnet) until on the weathered surface of the rock it appears as rusty spots. The decay of the olivine causes the rock to crumble and be easily shattered. From this hill a higher range, running east and west, could be seen about ten miles to the south.

A mile and a half from its mouth the stream narrows and rapids soon occur; here is a poor, not recently used, portage on the left side of the stream; beyond this portage the stream is crossed by many fallen logs, so we went no further.

About a mile and a half south of this place the low rounded hills, a form common to a gabbro country, seem to be collected into a low range that runs east and west. The country south of Mishiwiishiwi lake has been burnt and is now partially covered by small poplars and birches, although many of the hills are treeless.

*The small lake in sec. 32, T. 63-10.* A small island near the southern shore of this lake is composed of a red syenitic gneiss (No. 139), the gneissic structure being very easily seen on the weathered surfaces and running N.  $50^{\circ}$  E. (Mag.). A little north of this is another island composed of about the same syenite, but this (No. 140) does not show the gneissic structure. These islands are in the N. E.  $\frac{1}{4}$  of S. W.  $\frac{1}{4}$  sec. 32. On the west side of the little bay, which is in the N. W.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 32, the syenite is lighter colored and has large crystals of hornblende as shown by No. 141. At the portage, in the N. E.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 31 there is a light gray gneiss (No. 142) with the gneissic structure running N.  $60^{\circ}$  E. (Mag.); this gneiss holds pieces of a darker rock (No. 143), and seems to be mixed in with a mica schist and a hornblende schist a few feet south of the portage. On a little point, near where the line between secs. 31 and 32 crosses the southern shore of the lake, there is red syenite like No. 139. There was not time to examine the



whole lake, but the shores seemed to be made up of syenite, of which No. 140 is a fair sample.

Mr. H. V. Winchell found the rock on the southern (?) shore of this lake to be a dark hornblende rock (No. 144), which grades into the ordinary syenite through No. 145 and No. 146.

#### LAKE ISABELLE.\*

This lake lies in secs. 25, 35, and 36 of T. 62-8 and secs. 30 and 31 of T. 62-7.

On the west shore of the little bay in the S. W.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  of sec. 35, the gabbro is composed principally of labradorite with a small amount of a glassy yellow mineral (probably olivine) and magnetite, which seems to cause the rusty spots near the surface of the rock; a few scales of biotite are also present; this gabbro is represented by No. 147. A few rods further north there is an irregular vein of granulyte (No. 148) in the gabbro; the vein is eight inches wide; one of the specimens collected shows both the vein rock and the gabbro; in the vein rock there are a few scattered scales of biotite.

On the west side of the larger bay, which is in the N. W.  $\frac{1}{4}$  of sec. 35, there is a perpendicular cliff (5 to 15 feet high) of gabbro (No. 149) that is coarser grained and contains considerable olivine, but some of this yellow color may be due to a decayed condition of the labradorite. At the head of this bay, gabbro similar to No. 149 occurs.

On the shore in the S. W.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 35 there is a dark, heavy, fine-grained trap rock (No. 150) which gives a metallic ring when struck by the hammer; this grades into No. 151 which is coarser. A few rods back from the shore Nos. 152 and 153 were found in low outcrops; these seem to be but different conditions of No. 150. No. 152 contains considerable magnetite. A little further north on the shore this rock contains small patches of biotite, as shown by Nos. 154 and 155, the latter being a decayed condition of the former. These grade into No. 156 which is coarser. On the shore, a few steps north of No. 156, this rock (trap) is found in contact with the gabbro (N.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 35); the line of contact was not always distinct and in some places, as near as could be determined from the smooth-weathered surface, the transition from one rock to the other occupied two

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\* Only the north shore of this lake is here described; for the description of the rest of the lake, and also of most of the country between here and lake Superior (this lake and the two following being the only ones here mentioned), consult the report of Mr. H. V. Winchell.



or three inches. No. 157 represents the trap near the contact with the gabbro.

The rest of the north shore of the lake has many gabbro outcrops; for long distances there are smooth, flat exposures of gabbro rising but a few inches above the water and extending back for several yards from the shore. Three dikes are found cutting the gabbro. The first is in the N. E.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 35; this dike is twenty inches wide and was traced for over sixty feet; it runs N.  $30^{\circ}$  W. (Mag.); the rock is a very fine diabase (No. 158); the contact with the gabbro is distinct. This dike occurs only a few rods north of the contact mentioned, about ten lines above. The second dike is in the S. W.  $\frac{1}{4}$  of sec. 30, T. 62-7, is twenty feet wide, and could be traced only twenty-five feet, as the water covered it on one end and the soil on the other; the rock is diabase and is represented by No. 159, which was taken from the centre of the dike, and by No. 160, which was taken from one side (only one side of the dike was finely crystalline); No. 160 appears to be the same as No. 158; the contact is distinct. The third dike is in the W.  $\frac{1}{2}$  of sec. 31, T. 62-7 and is composed of a fine diabase represented by No. 161; this dike is fourteen inches wide and can be traced only a few feet.

#### BELLISSIMA LAKE.

This lake lies in the southeastern corner of T. 61-7. The north shore was examined by the writer. The shore is usually lined with boulders, most of which are large gabbro boulders, the others are smaller and apparently come from the drift; some of the latter are probably from Cupriferous rocks. Wherever the rock was exposed it was found to be very coarse labradorite gabbro, as shown by No. 162, which was obtained on the shore, about half a mile east of the west end of the lake. The north shore was low and there were no hills near the lake. No glacial striæ were seen.

#### PINE LAKE.

This lake lies in the S. W.  $\frac{1}{4}$  of sec. 21 and in the N. W.  $\frac{1}{4}$  of sec. 28, T. 60-6.

On the north shore, about one-fourth mile east of the portage from lake Harriet (just west of Pine lake), is a low rock outcrop at the water's edge; this outcrop is about twenty feet square. The rock is of three kinds; (1) a gray rock (No. 163) composed

mainly of a gray feldspar; (2) a red rock (No. 164) made up of quartz and red feldspar; (3) a very fine dark trap (No. 165) holding crystals of red feldspar. No. 164A shows a darker and more siliceous condition of No. 164. Nos. 164 and 165 are very much mixed, each containing pieces of the other (see Nos. 164, 165, 165A, and 165B). No. 163 is not found mixed with the others, but it contains a few small pieces of a dark siliceous rock as shown by No. 163A. No. 163B is intermediate between No. 163 and No. 164. The dark trap much resembles some of the trap of the Cupriferous; it is split by numerous parallel planes that are vertical and run N. 5° W. (Mag.); these are shown by the specimens.

A diabasic rock (No. 166) outcrops on the east shore near the southern end of the lake; it holds a few scattering crystals of feldspar which are sometimes nearly an inch long. This outcrop and the one mentioned above are the only two outcrops on the north and east shores of the lake.

Mr. H. V. Winchell reports several outcrops of fine diabase on the west shore of the lake; Nos. 167, 168, and 169 represent this; they seem to differ only in fineness, and all of them are much finer than that from the east shore.

The notes from Mayhew to Flying Cloud lake (inclusive) were taken on a trip from Gunflint lake south to Brulé lake and then north and west through townships 63-4, 64-4, 65-4, 65-5, and 65-6 to Ogishke-Muncie lake. The object of this trip was to examine reported iron ore locations, most of which were not found as reported,—there usually being no ore to be seen. The country passed over is one not usually traveled by white men and is seldom used by Indians except in winter; consequently the portages are very poor and badly cut, it oftentimes being necessary to go ahead and recut a portage before the canoe could be taken across. This fact, together with the fact that the township plats were very inaccurate, caused much unavoidable delay and waste of time. There are, however, some fair portages; those from Gaskanas lake to Brulé lake are quite good, and the portages from lake Ida Belle north to the lake in the S. W.  $\frac{1}{4}$  of sec. 35, T. 65-4 are wide and well cut out, being used as winter roads by the Indians.

Several of the lakes on this trip were given names, as they have none on the township plats nor on any of the maps accessible. It must be admitted that this is rather a bad principle to follow, the right way being to give them the names by which

they are known to the native Indians or, better still, to give the English equivalents of the Indian names; but, as the Indian names were not obtained, it was thought best to have some name by which each lake could be known. The lakes thus named are Straight, Meed's, Stray, Sham, Lost, Georgia, Surveyor's, Found, Ida Belle, Narrow, Round, and Draper lakes.

#### MAYHEW LAKE.

Mayhew lake is a narrow strip of water, about one-fourth of a mile wide and a mile long, extending east and west through the south half of sec. 36, T. 65-3. It is 305 feet above Gunflint lake. A rough, steep portage runs from Loon lake to Mayhew lake.

The ordinary labradorite gabbro (No. 175) is seen on the south shore in S. W.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 36. On the end of the little point, which is in the S. E.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 36, the gabbro (No. 176) has changed somewhat, and on the south side of this point it surrounds a large mass of iron ore. This ore (No. 177) seems to be principally magnetite, with a little scattering feldspar, but, as it is in the gabbro, it very probably contains a considerable amount of titanium. The exposure of ore was 30 feet wide and extended for about 300 feet along the shore, rising 15 feet above the water. The contact between the ore and gabbro was found at one place; here the gabbro does not pass into the iron ore by gradually acquiring more magnetite, but there is a sharp and distinct line between the two.

There is a trail, on the town line, running south from the lake; this trail was followed nearly three-quarters of a mile, and several gabbro ridges, running east and west, were crossed; the gabbro is much decayed and is nearly half made up of magnetite (No. 178). From the town corner (T. 65-2, 65-3, 64-2, and 64-3) a trail runs west along the line between townships 64 and 63. About a quarter of a mile west of the corner, and just south of the line, there is a small lake; here were seen many fresh beaver gnawings. Gabbro was the only rock seen on this trail (it was followed no further than the small lake mentioned above).

#### IRON LAKE.

This lake is a narrow body of water extending through the south half of secs. 31, 32, and 33 of T. 65-2. It is the same height as Mayhew lake, and the two are connected by a narrow strip of water, 60 or more feet in width.



The point, which is crossed by the line between secs. 31 and 32, also the north shore of the lake in the south half of sec. 32, were examined in order to see the iron ore at these places. (This lake was described in the tenth annual report, page 80.) The point was crossed twice west of the section line and once east of it, but no ore was found except a seam of magnetite (containing a little feldspar) eight inches wide and twelve feet long, and a few small masses (No. 179) of the same in the gabbro. A low ridge of gabbro runs along the southern shore of this point, and in this ridge the magnetite was found. The gabbro is, in places, quite rich in magnetite; this is shown by No. 180, which was taken near the section line. Four sections of a quarter of a mile each were made north of the lake in sec. 32, but no ore was found. The rock was all gabbro, and none of it contained as much iron as No. 180. The shores of Iron lake are usually lined with gabbro.

#### PORTAGE LAKE.

Portage lake is mostly in the north half of sec. 4, T. 64-2, but an arm extends east for half a mile in sec. 5, and the line between T. 64 and 65 crosses the northern part of the lake, making a small portion of it in sec. 33, T. 65-2. It is 25 feet above Iron and Mayhew lakes.

In the S. E.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 4, on the shore, is an exposure of a fine "muscovado" (No. 181); one of the specimens collected shows a porphyritic crystal which is probably labradorite. The relation of this rock to the gabbro could not be found at this place. On the south shore, in the N. E.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 4, there is an exposure where the gabbro and "muscovado" were found together. The former held several large masses of the latter rock that looked like dikes, but they could not be traced far enough to determine that they were dikes. There was one lenticular piece of "muscovado" (15 inches long) in the gabbro, and in places the gabbro held pieces of the other rocks in which were small bits of the gabbro. The bottom of the exposure was entirely of gabbro. It could not be positively ascertained which was the older of the two rocks, but the "muscovado" seems to have broken up through the gabbro.

On the south shore, in the N. W.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 3, the gabbro is in distinct beds from two to eight inches thick and dipping south about 30°. This bedded structure, dipping in the same direction and at about the same angle, was noticed



several times, but at no other place were the beds as thin and as distinct as here. The gabbro was seen at several other places on the south shore of the lake.

#### POPLAR LAKE.

This lake lies mostly in secs. 1 and 12 of T. 64-2 and secs. 7 and 8 of T. 64-1; a small portion is in sec. 6, T. 64-1, and a narrow bay extends into the S. E.  $\frac{1}{4}$  of sec. 2, T. 64-2. It is 20 feet below Portage lake. A portage leads from the east arm of Portage lake to the extreme northwestern point of Poplar lake; the trail is rather plain at the western end, but at the other end there is almost no trail at all. No one seems to have been over the portage for two or three years. No portage could be found leading to Duck lake (a small lake in the eastern part of sec. 3, T. 64-2) mentioned by N. H. Winchell in the tenth annual report, page 79.

Gabbro was seen in several places on the portage from Portage lake. On the little point in the N. W.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 12, T. 64-2, the gabbro is finer than is usually found. At this place it varied from No. 182 to No. 183; the former shows a gneissic arrangement of the minerals, but this is not constant. On the shore in the S. E.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 12 the gabbro (No. 184) has the labradorite collected together in spots, but this soon grades into the ordinary gabbro.

#### STRAIGHT LAKE.

This is a small, narrow lake, half a mile long and 100 yards wide, extending northwest and south east in the S. W.  $\frac{1}{4}$  of sec. 7, and the N. W.  $\frac{1}{4}$  of sec. 18, T. 64-1. It is 25 feet below Poplar lake and is not shown on the township plat. The portage starts from Poplar lake on the range line and runs a little east of south; it is about one-fourth mile long. Gabbro was seen on the portage.

#### CARIBOU LAKE.

Caribou lake is in sec. 18, T. 64-1 and sec. 13, T. 64-2. It is ten feet below Straight lake. The portage from the latter lake is a quarter of a mile long. Gabbro occurs on Caribou lake at the portage and was also noticed in several places along the north shore. There is a claim cabin in the S. W.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 13, T. 64-2, probably built within the last year, and from this cabin

a line ran north for one-fourth mile; no rock was found except some gabbro at the north end of this line. The south and west shores and some of the islands of this lake have not been burnt, but all the country passed through since leaving Loon lake was burnt a number of years ago and is now covered with a not very dense growth of poplars and birches, usually not more than 25 feet high.

#### MEED'S LAKE.

Meed's lake is less than half a mile wide, and extends through the northern part of secs. 14 and 15 into secs. 13 and 16 of T. 64-2. It is 10 feet above Caribou lake. The timber along the shores is very dense, composed mostly of spruce, and extends down to the water's edge. No portage could be found from Caribou lake to this lake, so it was necessary to portage up the creek bed (S. E.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 13, T. 64-2) for 100 yards, where the creek widens into a pond, and from the west end of this pond 200 yards more to Meed's lake. There is no high land to be seen from this lake except a hill, 90 feet above the water, in the N. E.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 15.

On the geological map in the fifteenth annual report iron ore is marked all along the north shore of this lake, but, after careful search, none was found. The north shore of the lake was examined and no rock was seen except several outcrops of gabbro. Several trips were made north from the shore, as follows: (1) One-fourth mile north, a little west of the centre of sec. 15; a hill of gabbro (No. 185), mentioned above, was the only rock found. (2) Mr. Meeds went more than half a mile north about one-fourth mile west of the line between secs. 14 and 15; he reported several outcrops of gabbro. (3) One-half mile north from the little bay which extends into the S. W.  $\frac{1}{4}$  of S. W.  $\frac{1}{4}$  sec. 11; no rock found in place except a little gabbro at the shore. (4) From the east side of this little bay where the line between secs. 11 and 14 crosses the shore, northeast one-third mile, and then south to the lake shore. Several low ridges of gabbro, running east and west, were crossed. On the way south to the lake a small exposure of almost flat-lying (dipping S.  $4^{\circ}$ ), bedded rock was found. This exposure was not more than six feet across; the rock is similar to some of the Animike beds of Gunflint lake and vicinity. One specimen (No. 186) was collected; this has a structure somewhat resembling öolite; pieces of this are quite common on the beaches of Gunflint lake. The rock is undoubt-

edly Animike, but I was unable to determine whether it was in place. Search was made for more of this rock, but none was found.

#### NORTH BRULÉ LAKE.

There is a portage starting from Caribou lake a little west of the line between ranges 1 and 2 and running south a quarter of a mile to the northwestern arm of North Brulé lake. North Brulé lake is a very irregular body of water lying in secs. 19, 20 and 29 of T. 64-1 and sec. 24 of T. 64-2. It is 20 feet below Caribou lake. Only that part of the northwestern arm lying in the N. E.  $\frac{1}{4}$  of sec. 24, T. 64-2, was examined; here gabbro was seen in two outcrops. The shore has not been burnt and is covered mostly by spruce and cedar.

#### STRAY LAKE.

This lake is long and narrow; it lies in the north half of sec. 24, T. 64-2 and extends nearly half a mile into sec. 23. It is 30 feet above North Brulé lake. The portage leading from the last lake to Stray lake starts almost directly south of the one from Caribou lake. Gabbro was seen on this portage and also along the stream that flows from Stray lake to North Brulé lake.

#### GASKANAS LAKE.\*

This lake is nearly three miles long, and not more than half a mile in width. It lies in secs. 22, 23, 24, 25, 26, and 27 of T. 64-2, and is 15 feet above Stray lake. We could find no portage leading south from Stray lake and so cut one to the pond which is in the S. W.  $\frac{1}{4}$  of sec. 24. From this pond an old and poorly-cut portage leads to Gaskanas lake. Gabbro was seen at each end of the last portage, also on the east side of the little bay in the S. E.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 26. This lake is a very pretty little sheet of water and is dotted with many green islands. The shores are densely wooded and along the south shore, especially in sec. 26 where there are two claim cabins, there is considerable good white pine.

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\*This name is taken from Heinze Bros.' "Map of the Vermilion Iron Range." This map gives Winchell lake as Ababikaigan lake.

## WINCHELL LAKE.\*

Winchell lake is a long, narrow body of water, over five miles in length and less than half a mile in width, extending east and west in the southern part of T. 64-2 and running half a mile into T. 64-3. It is 30 feet above Gaskanas lake. The portage from Gaskanas lake (this starts from the bay in S. E.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 26) is very good,—the first good one seen since leaving Gunflint lake. The water of Winchell lake is deep and very clear; the shores are well covered with timber which is composed mostly of spruce and birch with some scattering white pine. The Grand Marais Indians call this Mountain lake, probably because of the high ridge that extends along the south shore.

Gabbro occurs in place at the portage in the N. E.  $\frac{1}{4}$  of S. W  $\frac{1}{4}$  sec. 26, T. 64-2, and there are outcrops of rock (apparently gabbro) all along the north shore, but only one of these was visited; here (S. E.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 29) the gabbro (No. 187) is like the ordinary labradorite gabbro found further north, but is a little finer. We followed along the south shore of the lake, but no rock outcrops were seen until we came to the point which is crossed by the line between secs. 31 and 32, T. 64-2; here a high ridge, which extends all along the south shore of the lake and rises 50 to 100 feet above the water, comes to the shore and forms a precipitous cliff nearly 100 feet high. This cliff is composed of gabbro (No. 188) which differs from the ordinary gabbro in that it contains a considerable amount of a whitish feldspar mixed with the labradorite. The gabbro extends along the shore for a quarter of a mile west of this point.

In the N. W.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 31, T. 64-2, the above mentioned ridge is cut by a small stream flowing from Sham lake, which is just south of Winchell lake. Just east of this stream is a bluff rising 80 feet above the water. The rock at the foot of the bluff is covered by large angular masses of rock that have fallen down from higher up. The first rock seen *in situ* is almost 20 feet above the water level; it is gabbro (No. 189) that is like the ordinary labradorite gabbro, except that it is more compact and contains a little light-colored feldspar. Twenty feet higher up the gabbro is represented by No. 190; this is similar to No. 189, but has more of the light-colored (pinkish) feldspar. This feldspar increased until, ten feet above No. 190, the rock was

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\* This name is taken from Reisenegger's map of Northeastern Minnesota.



largely composed of it. This rock (No. 191) has a red color and seems to be the gabbro changed by heat; this could not have been done by forest fires as none have passed over the shore. The feldspar crystals vary all the way from the dark (almost black) labradorite through white to a decided red. This rock is about as coarse and, with the exception of color, has the same appearance as the ordinary gabbro. None of the specimens above mentioned contain any quartz. Two feet above No. 191 the rock is very dark and tough, being composed mostly of a black mineral probably hornblende, which is not always in definite crystals; this gives the rock (Nos. 192 and 193) the appearance of having a dark compact ground mass in which are scattered blotches of pinkish feldspar; in these feldspar blotches there are numerous small quartz grains. A little higher up occurred a fine pinkish gray syenite (No. 194). No. 195 was taken just above this and No. 196 from the top of the bluff. The latter is coarser and is a distinct syenite. On examining the bluff at another place the syenite was found at the top and the gabbro near the bottom. Among the angular pieces at the foot of the bluff one (No. 197) was found which seems to be intermediate between the highest gabbro (No. 191) and the syenite; it resembles No. 191 and, like it, has labradorite (?) crystals, but it also contains numerous quartz grains while No. 191 has none. On the north end of the portage to Sham lake the rock is a condition of the gabbro,—No. 198.

The above mentioned bluff shows an apparent transition from the gabbro at the bottom (No. 189) to the syenite at the top (No. 196), *the syenite lying on the gabbro*. The change is gradual, and rapid at only one place—between No. 191 and No. 192; here the transition occurs within two feet; the quartz in No. 192 is in such small grains that it was not noticed in the field, so the exact place where the quartz first appears was not determined; however, there is no distinct contact line between these two rocks, but the change from one to the other is quite sudden. It seems that the syenite is of igneous origin and has flowed out over the gabbro, the gabbro being changed somewhat by molten rock above it. No. 191 represents the changed state of the gabbro and No. 192 is the first, or lowest, part of the syenite; at any rate the change occurs between these two,—the distinct labradorite crystals disappearing and the quartz coming in.

## SHAM LAKE.

This is a small lake, less than a mile long, on the line between sec. 31, T. 64-2 and sec. 36, T. 64-3. It is 15 feet above Winchell lake and is connected with it by a small stream which is a short distance east of the range line. The portage between the two lakes is less than one-eighth of a mile in length. Sham lake has no long arm extending west through sec. 36, as is shown on the township plat.

The rock at the south end of the portage is represented by No. 199; this is similar to No. 192 except that the hornblende is in distinct crystals and the quartz is not very plentiful. On the east side of the lake, in the S. W.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 31, a fine red syenite (No. 200) occurs; it is composed of a red feldspar and hornblende, the feldspar making up about two-thirds of the rock; no quartz can be seen with a hand lens, but it probably contains some. The rock is probably the same as the fine red syenite or "red rock" found by Prof. N. H. Winchell both east and west of this place. Near the southwest corner of the lake, in S. E.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 36, there is a low outcrop of a rock (No. 201), apparently part of the transition from gabbro to syenite; it resembles Nos. 192 and 193 from Winchell lake.

## LOST LAKE.

From the south end of Sham lake there is a portage running S. S. W. for about a mile to Lost lake. This lake is not given on the township plat, and as near as could be determined it lies in the S.  $\frac{1}{2}$  of sec. 1 and the N.  $\frac{1}{2}$  of sec. 12, T. 63-3. It is about half a mile long (N. and S.) and a quarter of a mile wide. The shores are well wooded and have considerable good white pine. This lake is 30 feet above Sham lake.

On the portage from Sham lake the fine red syenite, same as No. 200, occurs in several places just east of the trail. On the west side of the lake, in S. E.  $\frac{1}{4}$  of S. W.  $\frac{1}{4}$  sec. 1, there is a high bluff of this same syenite; and many angular pieces have fallen down making a large talus; at this place the rock is represented by No. 202, which is of a brick-red color and contains even less hornblende than No. 200.

## BRULÉ LAKE.

From Lost lake there is a portage of a quarter of a mile running S. S. W. to a small lake, not shown on the township plat,

in the W.  $\frac{1}{4}$  of sec. 12, T. 63-3. This small lake is about a quarter of a mile in length. From its southern end a portage of less than a quarter of a mile leads to the bay of Brulé lake that extends into the S. W.  $\frac{1}{4}$  of sec. 12, T. 63-3.

Brulé lake is the largest lake seen since leaving Gunflint lake, —in fact it is the largest lake in Minnesota south of the boundary and east of range 9. It is seven miles long, the average width being a mile, and extends through the central part of T. 63-3 and a mile and a half into the western part of T. 63-2 (that portion of the lake in this township was not visited). The north and west shores have not been burnt; here is some good white pine. The southern shore was burnt some years ago and is now covered with a second growth of birches. There is a claim cabin on the point in the N. E.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 13, and from a Grand Marais Indian, we learned that there were several more about the lake. Brulé lake is 75 feet below Lost lake. The water is clear and deep.

In the S. E.  $\frac{1}{4}$  of S. W.  $\frac{1}{4}$  sec. 12, at the water's edge, there is a low exposure of a dark siliceous trap rock (No. 203), which appears to be perfectly homogeneous under the hand lens. This rock contains a few small crystals of iron pyrites. No bedding structure could be seen but there were many small joints cutting the rock; in one place these were parallel and dipped south about 20°. A little further south along the east shore of this bay (the bay in the S. W.  $\frac{1}{4}$  of sec. 12) is an outcrop of a rock (No. 204) composed almost entirely of plagioclase feldspar crystals of all sizes up to half an inch in length; these crystals seem to be imbedded in a dark, finely crystalline matrix, but this is a very small part of the rock.

On the point in the S. E.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 13 the rock at the water's edge is a white feldspar porphyry (No. 205); the feldspar crystals run up to those an inch in length; the matrix is dark and finely crystalline; it makes up about one-half of the rock. No. 204 is probably a condition of this porphyry. Ten feet above No. 205 and 30 feet back from the shore there is another feldspar porphyry (No. 206); this seems to be different from No. 205, as the matrix is much finer, darker and apparently more siliceous, and the feldspar crystals, instead of being white, are of a dull reddish-brown color; the matrix comprises about three-fourths of the rock; the feldspar crystals weather white. The rock between these two porphyries is covered by soil.

A few yards south of No. 206 is a small exposure of a brick-red rock (No. 207) which is composed of a reddish, homogeneous and siliceous ground-mass, in which are small crystals of a brick-red feldspar, a dark mineral (probably hornblende) and quartz. This rock might be called a quartz porphyry and is entirely different from any of the others on this point. It is cut by many parallel planes (shown in the specimen) which are vertical and run east and west. On the north side of this exposure the red rock is in contact with a fine diabase (No. 208); the contact line is distinct but was exposed for only a few inches; where seen it was vertical and ran east and west. Near the contact the ground-mass of No. 207 becomes darker and more siliceous; this is shown by No. 207A.

Where the line between secs. 13 and 14 strikes the north shore the rock is similar to No. 204. This same rock occurs on the point in the N. W.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 14 and also on the small island just south of this point. The shore was not examined again until reaching the large island in the centre of sec. 17; no outcrops were seen along the south shore of this island. On a small island in the S. E.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 18 there is a dark, diabase-like rock inclined to be amygdaloidal (No. 209); this is quite finely crystalline and inclines to a dark purple color. In places in this rock there are small blotches of a reddish feldspar; the centre of each blotch is composed of a dark mineral, probably hornblende. This rock also occurs near the west end of the island that is cut by the line between secs. 17 and 18, and on the east end of the portage towards Georgia lake.

It is to be regretted that we were unable to more carefully examine the relations of the rocks from the south shore of Winchell lake, to and through Brulé lake, but our provisions would not warrant a longer stay.

#### LAKE GEORGIA.

This lake lies in the W.  $\frac{1}{2}$  of sec. 18, T. 63-3, and sec. 13, T. 63-4, and small bays run into secs. 14 and 24. It is 6 feet below Brulé lake. The shores have been burnt and are now covered with small birches and poplars. A stream flows from Brulé lake to lake Georgia and the portage between the two lakes is in the S. W.  $\frac{1}{4}$  of sec. 18; it is only 200 feet, and not a quarter of a mile, as shown on the plat. Lake Georgia has no arm extending into sec. 12, T. 63-4, as is shown on the government plat.



In the north branch of the arm that extends into the S. W.  $\frac{1}{4}$  of sec. 18, a short distance west of the portage from Brule lake, there is a rock (No. 210) which appears to be a condition of the gabbro. A little west of this, and on the north shore of this arm, is an outcrop of a feldspar porphyry (No. 211); this seems to be somewhat similar to No. 206; the feldspar crystals are reddish, but rather scattered—probably making up not more than one-tenth of the rock. On the north shore of the lake in the N. E.  $\frac{1}{4}$  of S. W.  $\frac{1}{4}$  sec. 13, T. 63-4, there is a trap rock (No. 212); which is in contact with the gabbro, here represented by No. 213; the two specimens were taken within three feet of each other; the contact line was covered by soil. No. 212A shows the trap further from the contact; it is much coarser than No. 212. Gabbro also occurs where the line between secs. 13 and 14, T. 63-4 touches the northern shore of the lake.

#### SURVEYOR'S LAKE.

This lake is in sec. 12, T. 63-4. It is shown on the township plat as an arm of lake Georgia, but there is no connection between the two except a small stream flowing from Surveyor's lake; the portage between these lakes is in the N. E.  $\frac{1}{4}$  of sec. 13 and is over an eighth of a mile long. The aneroid shows no difference in height between the two lakes, but Surveyor's lake is a little higher than the other. North and east of this lake are hills 50 to 100 feet high.

In the S. W.  $\frac{1}{4}$  of sec. 12 there is a deep bay running west for nearly half a mile. At the end of this bay on the portage going west to Found lake is a fine red syenite (No. 214), similar to Nos. 200 and 202. There is a ridge extending along the north side of this bay; the red rock (syenite) in the ridge can be seen from the lake.

#### FOUND LAKE.

Found lake is in the S.  $\frac{1}{2}$  of sec. 11, T. 63-4. It is a small lake, less than half a mile long (east and west) and is not shown on the township plat. The shores have been burnt and are now covered with a second growth of birch and poplar. This lake is the same height as Surveyor's lake.

The fine red syenite, similar to No. 214, occurs in several places on the portage from Surveyor's lake. On the north side of the lake is a hill, 50 feet above the water, composed of a dia-

base (No. 215). On each side of this hill the red syenite occurs, thus making it seem as if the diabase had cut through the syenite; the two rocks were not seen in contact. The north shore of the lake is mostly made up of the fine red syenite. In one place this syenite held angular pieces (none were seen over three inches in diameter) of a fine dark rock; this is shown by No. 216, which shows both the dark rock and the syenite. In this specimen the syenite is easily seen to contain much quartz;— in the other specimens of this syenite (Nos. 200, 202, and 212) quartz can not be clearly seen with the hand lens.

#### LAKE IDA BELLE.

This lake is very irregular. It lies in secs. 1, 2, 3, 10, 11, and 12 of T. 63-4, while bays extend a short distance into T. 64-4, T. 64-2, and T. 63-3. It is 30 feet below Found lake. The country around lake Ida Belle, except a small portion at the northeast corner of the lake, has been burnt, and there are vast exposures of rock all around the lake not yet covered by a second growth of trees.

This lake lies in the great gabbro sheet; probably nine-tenths of the rock around the lake is gabbro, the rest being trap and fine red syenite. A belt of iron ore was reported running from sec. 1 to sec. 18, T. 63-4; the entire lake shore was examined, also part of the country southwest of the lake, but no iron ore was found;—in fact the only iron seen consisted of a few bands or seams of magnetite in the gabbro. Fresh beaver cuttings were seen along the shore in sec. 10, T. 63-4. No portage could be found from the last lake to lake Ida Belle, and so one was cut straight north for about one-third of a mile; this brought us to lake Ida Belle near the centre of Sec. 11, T. 63-4.

In the S. W.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 11, T. 63-4, the gabbro (No. 217) occurs and continues along the south shore most of the way to the stream that enters the lake in the S. E.  $\frac{1}{4}$  of sec. 10. In the S. W.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 11, just east of the line between secs. 10 and 11, there is an exposure of diabase (No. 218). The gabbro on the little point in the S. E.  $\frac{1}{4}$  of sec. 10 is cut by a dike of fine diabase (No. 219); the dike runs a little west of north; it is three feet wide and was traced twenty feet. The gabbro at this point is represented by No. 220, which is exactly similar to that found much farther north.

A trip was made south to the corner between secs. 10, 11, 14, and 15 and then west along the line between secs. 14 and 15 for

nearly half a mile; the line could be followed no farther, and so we went as near west as possible until two miles west of the above corner. Many rounded hills of gabbro were crossed,—in fact all the rock seen was gabbro except a small outcrop about three-fourths of a mile from the corner; this outcrop consisted of a fine-grained rock (No. 221) which, if it were a little more decayed, would resemble what has been termed “muscovado.” One of the specimens collected (No. 222) is from a vein which contained large crystals of hornblende, an inch or more long. In some places there were small patches or seams of gabbro that contained considerable magnetite, as shown by No. 223, but in no place did the magnetite make up more than one-third of the rock. At one place, one and a half miles west of the corner, there was a thin scale, not much more than half an inch thick, of magnetite lying on the gabbro; this extended only about 20 feet; No. 224 is from this scale of magnetite. From the last place (one and a half miles west from the corner) Mr. Meeds went north for half a mile, and found nothing but gabbro. A section was also made south for half a mile; the gabbro was the only rock seen.

Gabbro continues along the north and west shores of the lake in sec. 10; it was examined in several places. There is a very small bay in the N. W.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 10; on the east side of the entrance to this bay there is an exposure of gabbro sloping down to the water. The surface of the gabbro is spotted with small and irregular pieces of the fine red syenite (No. 225), and there are veins of this syenite in the gabbro; there is also a large piece of syenite, 10 by 20 feet. This large piece and the smaller pieces of syenite seem to lie on the gabbro; and this, together with the fact that the gabbro is cut by veins or dikes of the syenite, would indicate that *the syenite is of later date than the gabbro*. The top of the gabbro exposure is cut by an irregular dike, which at one end is three feet wide; it then widens out to twelve feet. The direction of the dike is nearly east and west, and it was traced forty feet. The syenite at this place is represented by No. 225, the dike rocks by No. 226, and the gabbro by No. 227. This is the first place that the writer has found the fine red syenite in contact with the gabbro. The two are seen in contact again at the northwest corner of this little bay; here the contact is vertical, and is a sharply defined line, but there is only a small (four feet wide) strip of syenite exposed.

Many outcrops of gabbro are seen along the west shore of the lake till we reach a small island in the N. E.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 3. On the north side of this island the gabbro and the fine red syenite are again seen in contact; *here the gabbro lies on the syenite*, which is represented by No. 228. A bluff of rock about thirty

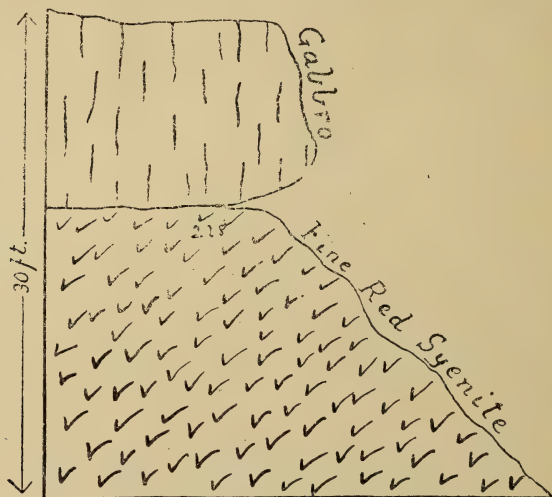


Fig. 4. Gabbro lying on fine red syenite, lake Ida Belle.

feet high is exposed; the upper part is composed of gabbro, which projects out beyond the syenite lying below. At the contact the gabbro has crumbled away, so the actual contact line could not be seen, but the two rocks were found within an inch of each other. There seems to be no change in either rock near the contact.

In the N. E.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  and S. E.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 3, T. 63-4, just north of the island mentioned above, there is a hill composed of a dark fine-grained rock (No. 229). This is cut through and through by numerous, irregular, branching veins of the fine red syenite (No. 230); these vary from two feet to half an inch in width, and even run out to needle-points. No. 229 seems to be a syenite, like the red syenite, but the hornblende makes up so large a part of it that the rock appears almost black. It is different from the dark rock seen in the syenite on the north side of Found lake. No. 231 shows Nos. 229 and 230 in contact; the contact is a distinct and sharply defined line, and in no place were the two rocks found to grade into each other.



The rest of the lake shore was examined; gabbro was found in many places, especially along the eastern shore. On the west shore, near the centre of sec. 2, T. 63-4, were two exposures of No. 229 cut as above described by fine red syenite similar to No. 228. At the extreme northeastern corner of the lake, in the S. W.  $\frac{1}{4}$  of sec. 31, T. 64-3, the red syenite again occurs. At the portage (S. E.  $\frac{1}{4}$  of sec. 35, T. 64-4) going north from lake Ida Belle the gabbro was cut by veins of fine red syenite (No. 232).

#### FROM LAKE IDA BELLE TO OGISHKE-MUNCIE LAKE.

*Narrow lake.* This is a narrow irregular lake in secs. 25, 26, 35, and 36 of T. 64-4; it is a mile and a half long (north and south), but not more than a quarter of a mile wide. It is 15 feet below lake Ida Belle. The shores are densely wooded, the timber being mostly spruce, birch and jack pine. The portage from lake Ida Belle is in the S. E.  $\frac{1}{4}$  of sec. 35; it is well cut and only about an eighth of a mile in length. Gabbro occurs on the west shore in the N. E.  $\frac{1}{4}$  of sec. 35. On the west shore (S. E.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 26) near the north end of the lake is what seems to be a decayed condition of the gabbro (No. 233); this contains considerable biotite.

*Kiskadinna lake\*.* This lake is mostly in sec. 24, T. 64-4 and secs. 19 and 20, T. 64-3. It is 25 feet below Narrow lake. The shores are densely wooded. The northern arm, which is in the S. E.  $\frac{1}{4}$  of sec. 13, T. 64-4 and the N. W.  $\frac{1}{4}$  of sec. 19, T. 64-3, is shown on the plat as a separate lake, but it is only an arm of Kiskadinna lake. There are two short portages from Narrow lake to this lake along the stream that connects the two lakes. Not many rock exposures are to be seen along the shores of this lake; all those examined were gabbro. Gabbro also occurs on the south shore of the northern arm where the line between ranges 3 and 4 touches the shore.

*Kiskadinna lake to Round lake.* In the N. W.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 13, T. 64-4 there is a short portage from Kiskadinna lake past a rapids in the stream† that flows from this lake through secs. 13, 11, 10, 3, and 2 of T. 64-4 into Round lake which is in the S. W.  $\frac{1}{4}$  of sec. 35, T. 64-5. There are three rapids along this stream where short portages are made—in the N. W.  $\frac{1}{4}$  sec. 13, S. W.  $\frac{1}{4}$  Sec. 11, and N. W.  $\frac{1}{4}$  sec. 2,—this last portage coming to Round

\* This name is taken from Heinze Brothers "Map of the Vermilion Iron Range."

† This stream finally enters Gunfint lake at its western end.

lake. The stream is easily canoeable, being usually from 100 to 1,000 feet wide. The portages are well cut and seem to be used considerably in the winter time. The only rock seen along this stream was gabbro; this occurred in several places, as follows: near the centre of sec. 13, S. E.  $\frac{1}{4}$  of sec. 11, on the portage in the S. W.  $\frac{1}{4}$  of sec. 11, N. E.  $\frac{1}{4}$  of sec. 10, S. W.  $\frac{1}{4}$  of sec. 2, N. W.  $\frac{1}{4}$  of sec. 2, and on the portage in the N. W.  $\frac{1}{4}$  of sec. 2. Round lake is 60 feet below Kiskadinna lake.

*Draper lake.* This is a somewhat circular lake in the W.  $\frac{1}{2}$  of sec. 34 and the E.  $\frac{1}{2}$  of sec. 33, T. 65-4. It is 35 feet above Round lake. A portage of about half a mile connects these two lakes; it leaves Round lake at its northwestern corner. The gabbro occurs in several places along this portage. There are also many fragments of quartzite on the portage, but no rock was found in place; these are probably from what has been termed Pewabic quartzite found a short distance north of here. On the western shore of the lake, in the N. E.  $\frac{1}{4}$  of sec. 33, there is an exposure of a muscovado-like rock (No. 233 $\frac{1}{2}$ ).

*Draper lake to Flying Cloud lake.* From Draper lake we went through six small lakes to Flying Cloud lake. This plat (T. 65-4) is very inaccurate, and the route we took and the position of the lakes could not be definitely determined. Below, the lakes have been numbered from one to six, and the location given as near as possible.

Lake No. 1:—Near the centre of sec. 33, T. 64-5. Forty feet above Draper lake.

Lake No. 2:—N. W.  $\frac{1}{4}$  of sec. 33, T. 64-5, not shown on the plat. Same height as lake No. 1.

Lake No. 3:—This is probably Charley lake, which is in the N.  $\frac{1}{2}$  of sec. 32, T. 65-4. Fifteen feet above lake No. 2.

Lake No. 4:—Centre of sec. 29, T. 65-4. Not shown on the plat. Forty feet above lake No. 4. On the west side of the portage (this portage runs nearly north) from lake No. 3 there is a bluff 25 feet high and over 100 feet long; the front of the bluff is perpendicular. At the base near the centre there is a fine gray syenite (No. 234), forming the first eight feet of and extending for 25 feet along the foot of the bluff. Directly over the syenite and lying on it is the gabbro (No. 235) which composes most of the bluff. The change from the gabbro to the syenite was abrupt, there being no transition. The contact line was not easily seen as the face of the bluff was covered with lichens, but on chipping off small pieces of the rock the syenite and gabbro

were seen within an inch of each other. The syenite is very much finer than the Saganaga syenite found on the north shore of Gunflint lake. Just across the portage-trail from this bluff of syenite and gabbro there is one exposure of "muscovado" (No. 236) similar to No. 233½. A little island in the southern part of lake No. 4 is made up of a fine gabbro (No. 237) that seems to contain considerable olivine.

Lake No. 5:—E. ½ of sec. 30, T. 65-4. Not shown on the plat. This is a small lake, not more than a quarter of a mile across. Same height as lake No. 4.

Lake No. 6:—S. W. ¼ of sec. 30, T. 65-4, and S. E. ¼ of sec. 25, T. 65-5. 25 feet below lake No. 5.

*Flying Cloud lake*:—This lake is about a mile in length, and lies in the S. ½ of S. ½ of sec. 25, and a small portion is in the N. W. ¼ of sec. 36, T. 65-5. 30 (?) feet below lake No. 6.

On the south shore near the east end of the lake (S. E. ¼ of S. E. ¼ sec. 25) there is a low ridge of dark, almost black, quartzite running east and west. This quartzite stands vertical, and the strike, as near as could be estimated without the needle, which is here much disturbed, is about east and west. The bedding is very plainly seen, especially on the weathered surfaces; this is caused by bands, which contain varying proportions of the two minerals of the rock,—quartz\* and magnetite. The specimens collected (No. 238) fairly represent the rock, which is so rich in magnetite that it would make a fair iron ore. The principal exposure is in a vertical north facing wall, 12 feet high and 40 feet long, but several other smaller exposures are seen for 150 feet east of this. At the foot of the ridge is an outcrop of greenstone (No. 239). It seems as if the quartzite overlies the greenstone, but this could not be positively determined (however, this is found to be the case about a mile west of this point). This quartzite is the Pewabic quartzite described in the 16th annual report, and the greenstone is probably the same as that mentioned in connection with the quartzite.

From Flying Cloud lake we went southwest for about two miles along a stream—making four short portages—to Kakego lake. On the north side of this stream, a short distance west of the first portage from Flying Cloud lake (probably in the S. E. ¼ of S. E. ¼ sec. 26, T. 65-5), the Pewabic quartzite again occurs; here it is fully as rich in iron as seen at any other place. This

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\* It is quite probable that there is also olivine in the rock.

is shown by No. 240. It dips south about  $40^{\circ}$ . Twelve feet north of this quartzyte is a low outcrop of greenstone (No. 241); this is much darker and heavier than No. 239 and apparently contains considerable iron. The position and dip of the quartzyte would bring it over the greenstone. The contact between the two rocks was covered by soil. On the south side of the stream is a ridge, 50 feet high, of the quartzyte dipping south about  $50^{\circ}$ . No. 242.

On the east end of the second portage from Flying Cloud lake the quartzyte is again seen; here it dips south  $45^{\circ}$ . On the west end of the portage the quartzyte is found lying on the greenstone (see Fig. 5). This is probably in the N. W.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 35, T. 65-5. The contact is abrupt and there is no transition from one rock to the other. Both rocks seem to be unchanged near the contact, except that the greenstone is a little decayed. The Pewabic quartzyte, dipping south  $45^{\circ}$ , is shown by No. 243, which was taken within six inches of the contact. The greenstone is shown by No. 244; this seems to be similar to No. 239.

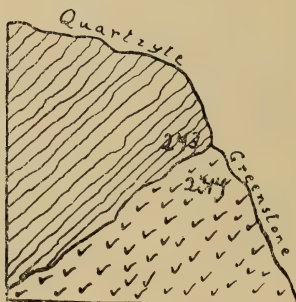


Fig. 5. Pewabic quartzite lying on greenstone, N. W.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 35, T. 65-5.

#### SHOO-FLY LAKE.\*

This lake is in the S. E.  $\frac{1}{4}$  of sec. 11 and the N. E.  $\frac{1}{4}$  of sec. 14, T. 64-7. On the little point, in the N. E.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 14, there is a fine-grained condition of the gabbro (No. 245), and on the east side of the lake near the southern end there is a precipitous cliff of the same rock rising 50 feet above the water,

\*The following notes were taken on a trip from Knife lake through Kekequabic, Shoo-fly, Fraser, Thomas, Alice and Wilder lakes, thence along the Kawishiwi river to the S. E.  $\frac{1}{4}$  of sec. 3, T. 62-9, and then through Gull lake to Mishiwiishi lake.



From Shoo-fly lake a portage of a third of a mile runs south to a small lake, not shown on the plat, in the S. W.  $\frac{1}{4}$  of sec. 13, T. 64-7. On the west side of this lake near the northern end there is an outcrop of gabbro (No. 246); this is finer than the ordinary gabbro. On the west side of the lake near the southern end is another outcrop of gabbro (No. 247) which seems to be a decayed condition of No. 246. From the southern end of this lake a portage runs south for about a third of a mile and reaches Fraser lake in the N. W.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 24, T. 64-7.

#### FRASER LAKE.

Fraser lake is mostly in secs. 22, 23 and 24 of T. 64-7. On the north side of the lake in the S. E.  $\frac{1}{4}$  of S. W.  $\frac{1}{4}$  sec. 14, T. 64-7 there are several exposures of iron ore;\* these were examined rather carefully. About 150 yards north of the shore, where it is cut by the line between secs. 14 and 23, is a small pit, four feet deep. At the bottom of this pit is found quite a rich olivinitic iron ore (No. 248); this disturbs the needle but slightly and seems to be mostly menaccanite rather than magnetite. On the north this comes in contact with a wall of rock (No. 249) composed of large crystals of hornblende (?) that is almost fibrous; in this there are parallel bands of iron ore (Nos. 250 and 251) which run east and west and dip south about  $80^{\circ}$ . No. 250 is similar to the ore in the pit, while No. 251 is distinctly a magnetic quartzite and shows the bedding plainly. A few rods northeast of this pit, and at the top of the steep northward slope, is another exposure of olivinitic iron ore (No. 252); this appears similar to the ore in the pit, but affects the needle very strongly, thus probably being mostly magnetite. This mass of iron ore at its western edge comes into direct contact with a hornblende rock (No. 253) which is a less decayed condition of No. 249. The hornblende rock is here also in contact with a fine "muscovado" (No. 254) which shows a few large crystal faces of feldspar, half an inch or more in length. Very little of these two rocks was seen and their relation to each other was not determined. The contact line is irregular and there is no transition from one to the other, nor is there any sign of alteration in either rocks near the contact. A few small areas in this hornblende rock were quite rich in iron, as shown by Nos. 255 and 256, but the limits of these areas were rather sharply defined. The observations

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\*This is the place where an attempt was made to mine for gold several years ago.

were made on a ridge which runs east and west; it was examined for 100 yards on each side of the above mentioned pit. The north side of the ridge is rather steep and at its foot occurs the muscovado, here represented by No. 257. As far as exposed the top of the ridge is composed of the hornblende rock (Nos. 249 and 253); this holds many masses and bands of magnetitic quartzite. The bedding in the quartzite is usually very distinct; in all the places examined it runs east and west, but within ten feet the dip varies from the vertical to about  $45^{\circ}$  south. The masses of iron ore where Nos. 248 and 252 were obtained contain very little quartz and show no evidence of bedding. The line of contact between the quartzite and the surrounding rock is usually distinct and very irregular; there was no blending of the two rocks. No. 258\* shows the quartzite, and in the specimens numbered 259 the bedding is plainly seen. No. 260 shows the contact of the quartzite and the surrounding rock.

In the N. W.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 23, about a quarter of a mile west of the previously described locality, is a ridge running east and west; this is probably an eastward continuation of the ridge mentioned above. On the south side near the base of the ridge and about 50 feet from the lake a rather fine, decayed, gabbro-like rock (No. 261) occurs; this is exposed in several places; it has a rough bedded structure (the beds being from 6 to 12 inches thick) which is nearly horizontal. On the north side of the ridge and near its foot is a small exposure of iron ore (No. 262); it has a tendency to split along parallel plains which are vertical and run east and west. Within ten feet of this ore the quartzite is seen. The ridge at this place is made of quartzite which was followed eastward for 50 yards, where the ridge ends abruptly. The bedding is very nicely seen along the weathered surfaces; it is caused by bands of almost pure quartz alternation with bands rich in magnetite. Some of these bands are shown by Nos. 263, 264 and 265. Throughout the fifty yards that the quartzite was followed, except in one small area where the beds had been broken and bent, the strike and dip were constant, the former being almost east and west, and the latter south  $75^{\circ}$ . At the eastern end of the ridge a band two feet wide, of a fine muscovado-like rock (No. 266) occurs interbedded with the quartzite; this rock was traced for over 30 feet; it has a tendency to a rough cleavage which is parallel with the quartzite bedding. On the

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\*No. 268 was taken from the quartzite near this; it is a bunch of the crystals of the hornblende rock, but they seem to be mostly magnetite.

south side of the ridge, but not within 30 feet of any quartzite, is also found an outcrop of the iron ore (No. 267) which has weathered into thin parallel sheets conformable with the quartzite.

The quartzite described at these two localities on Fraser lake is decidedly like the Pewabic quartzite. Evidently the gabbro, which covers this section of country, has been worn away and a much disturbed portion of the underlying quartzite exposed. The quartzite was not seen in contact with, nor in fact near any of the ordinary labradorite gabbro, but this gabbro has been seen on all sides of it at places usually less than a mile distant.

#### THOMAS LAKE.

This lake is in secs. 27, 28, 29, 32, 33 and 34 of T. 64-7, and secs. 5 and 6 of T. 63-7. There is some good white pine along the southern shore of the lake; several claim cabins were seen here.

The iron ore, shown on the map (in the 15th annual report) as occurring on the north side of the lake in secs. 27 and 28, was not found, although the locality was carefully examined. The only iron seen was a small amount of menaccanite in the gabbro (No. 269); this specimen was found about a quarter of a mile north of the lake in the N. E.  $\frac{1}{4}$  of sec. 28.

On the north side of the mouth of the little bay, which is near the centre of the W.  $\frac{1}{2}$  of sec. 27, there is a bluff 40 feet high, of muscovado (No. 270) holding irregular blotches of a light colored feldspar.

On the lake shore in the N. E.  $\frac{1}{4}$  of sec. 29, on a little point that is about half way between the meander corner on the line between secs. 28 and 29 and the stream that flows toward Ima lake, is a low outcrop of rock (No. 271) similar to the hornblende rock found at Fraser lake. Here were many angular fragments of quartzite (similar to the Pewabic quartzite); one specimen (No. 272) was taken to show how plainly the banding appears on a weathered surface. A few feet back from the shore is an outcrop, two feet high, of magnetic iron ore (No. 273);\* this is composed of almost pure magnetite with a little olivine. This ore was not seen in contact with any other rock, but it contains a few of the crystals that make up the hornblende

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\* This is probably the ferruginous gabbro mentioned in the 15th annual report, page 360, but no hammer marks were seen here. (It was this which was intended to be represented on the map. N. H. W.)



rock. No bedding could be seen. On farther search a low outcrop of quartzite, similar to that seen at Fraser lake, was found about 50 yards from the shore. By pulling away the moss and soil this rock was exposed for twelve feet. It lies nearly horizontal, dipping south about  $10^{\circ}$ . Nos. 274 and 275 show this quartzite. As the shore at this point is low and there is very little rock exposed, the relations of the hornblende rock, the iron ore and the quartzite could not be determined.

#### LAKE ALICE.

From the extreme southwestern corner of Thomas lake a portage, of less than a quarter of a mile, leads southwest to Gabiskamak\* lake, which is an irregular lake lying in sec. 6 of T. 63-7. The shores of this lake, except a small portion at the northern end, have been burnt and are now partially covered by bushes 8 to 10 feet high. There were many rock outcrops along the shores; all of those visited were gabbro, and the others appeared to be the same.

From the south end of Gabiskamak lake a portage of half a mile leads south to the arm of Wilder lake that extends into the S. E.  $\frac{1}{4}$  of sec. 7, T. 63-7. Gabbro was seen in several places on the portage; also on the west shore of the arm of Wilder lake. The north shore of the Kawishiwi river was examined from Wilder lake to lake Alice; no rock was seen except gabbro and there were many exposures of this. Between these two lakes both shores of the river have been burnt and are now covered with small birches, poplars and jack pines.

Lake Alice lies mostly in secs. 9, 10, 15, 16 and 21 of T. 63-7. It is four feet above Wilder lake and is connected with it by two miles of river in which there is one fall; this is in the N. E.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 20, T. 63-7. The Chippewa name for this lake is Pe-na sagiagan or Partridge lake. The island crossed by the line between secs. 9 and 16 has not been burnt; also the N. W.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 15, where there is a claim cabin and some Norway pine. The rest of the shore has been burnt and is now covered with young birches, jack pines, and poplars. From the end of the bay in the N. W.  $\frac{1}{4}$  of sec. 22 there is a portage leading east; there is also one, leading east, leaving the lake in the N. W.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 10. From the extreme northern end of the lake a short

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\* This is the Chippewa name of the lake; I do not know its meaning.



portage leads to a small lake, on the south shore of which the gabbro is exposed. Lake Alice, and especially the eastern side, was rather carefully examined, stops being made about every 200 or 300 yards (the bay in the N. E.  $\frac{1}{4}$  of sec 9 was not entered); no rock was found except the ordinary labradorite gabbro; this was seen in very many places; No. 277 is a sample from the S. E.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 15. In one place on the east side of the long bay in sec. 15 the gabbro (No. 276) is of a decidedly pinkish color; the labradorite crystals have a pinkish tinge and there are blotches of a very soft, brick-red mineral, probably an oxide of iron. Search was made back from the shore for more of this pink gabbro, but none was found.

#### LAKE ALICE TO MISHIWISHIWI LAKE.

The bay of Wilder lake which lies in sec. 13, T. 63-8, was not entered by the survey two years ago; and so it was examined on this trip; no rock was seen except the gabbro.

From Wilder lake the Kawishiwi river was followed to the little bay in the N. W.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 3, T. 62-9; here a portage of about two miles was made southeast to Gull lake. There is no portage route through this way,—only a very poor trail which is used by the Indians in their winter trapping. On the way three ponds were crossed; one in the S.  $\frac{1}{2}$  of sec. 3, T. 62-9, one in the N. E.  $\frac{1}{4}$  of sec. 9, and one on the line between secs. 9 and 16;—no rock exposures were seen on these ponds, but there were exposures of gabbro in the N. W.  $\frac{1}{4}$  of sec. 10 and the N. W.  $\frac{1}{4}$  of sec. 16.

Gull \* lake is a narrow body of water extending northeast and southwest in sections 16, 17, 19 and 20 of T. 62-9. The shores are closely covered with spruce and jack pine. The west side of the lake was examined; all the rock seen was the ordinary gabbro. From the southwest corner of this lake a fair portage, over a mile in length, leads southwest and reaches Mishiwiishiwi lake where the line between secs. 24 and 25, T. 62-10 crosses the shore. Gabbro occurs along this portage.

#### PINE ISLAND, VERMILION LAKE.

A section was made across Pine island, on the line between ranges 15 and 16, in order to examine a hill of jasper reported

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\*The Chippewa name is Gaiashk (Gi-ashk) sagaigan or Gull lake.

to be there. The writer crossed the island on this line and also went west from the line for a mile, near the centre of the island, but found no jasper hill, nor any indications of jasper. The rocks seen on the section across the island are given below.

At the north side of the island is a hill, rising 40 feet above the water; this is made of vertical, rather siliceous, sericitic schist (No. 284); the strike is E.  $15^{\circ}$  N. From this hill a swamp, where there are no rock exposures, extends for nearly one-fourth of a mile south of the corners of T. 62-15, 62-16, 63-15 and 63-16. At the south end of the swamp is a low (six feet high) ridge of sericitic schist (No. 285); strike E.  $20^{\circ}$  N., vertical. Just north of the quarter post there are three ridges running east and west. The first ridge is composed of a greenish rock, which on the north side of the ridge is quite schistose and somewhat sericitic (No. 286); strike E.  $10^{\circ}$  N., vertical; on the south side the rock is more massive and graywacke-like (No. 287). The second ridge is made of a rough sericitic schist (No. 288); strike nearly east and west, vertical. No. 289 is from the third ridge; it is harder, greenish, and perhaps somewhat chloritic. South of the quarter post, and about an eighth of a mile from the lake, the following rocks were seen; strike E.  $15^{\circ}$  N., vertical. No. 290, light gray argillaceous slate; Nos. 291, 292 and 293, coarser and rather sericitic conditions of the same; Nos. 294 and 295, light gray argillaceous slate. No. 296 shows a more siliceous condition of the slate. At the lake shore there are fine argillaceous slates\* (No. 298); these vary from black to gray; the slaty structure and the black and gray bands are parallel; strike E.  $15^{\circ}$  N., and dip  $80^{\circ}$  to the north. No. 297 shows the gray slate a few feet from the shore.

### III. SUMMARY.

No generalization or theories would here be in place, but it may, perhaps, be admissible for the writer to give a very brief summary statement of the bearing of some of the facts in the foregoing notes upon the general geology of the region traversed. The following remarks relate, more or less, to the great gabbro sheet, which covers so much of that part of Minnesota north of lake Superior.

The fine red syenite, or "red rock" of former reports, was seen in several places on lake Ida Belle in contact with the gabbro. In one place (see fig. 4) the gabbro was in contact with

\* Mentioned in 15 An. Rep., p. 303; No. 921.

and was unquestionably overlying the syenite; but in other places veins and dyke-like forms of what certainly appears to be the same syenite cut through the gabbro. The syenite has the appearance of an eruptive rock, and the general impression left on one, by seeing the outcrops on this lake, is that the syenite is of more recent date than the gabbro. The two rocks are very distinct and in no place were seen to grade into each other; where they were seen together the contact was a well defined line.

The syenite found on the gabbro at Winchell lake is not the same as that just mentioned.

The iron ore and magnetic quartzite (of which the ore is a part) found at Fraser and Thomas lakes are undoubtedly disturbed portions of the Animike beds now included in the gabbro. It is probable that they have not been moved far from their original position, and that, consequently, at this place the gabbro sheet is of a comparatively small thickness. It seems that all the ore at this place is from the quartzite and that that portion which is but slightly magnetic has become charged with titanium from the gabbro. In connection with this quartzite is found a peculiar rock that is made up of coarse and almost fibrous crystals of what is probably hornblende. This rock, as far as the writer knows, has been found in this region nowhere except in connection with this quartzite and then only when the quartzite was close to or in contact with the gabbro. The quartzite south of Birch lake, at Chub (Akeley) lake and at Thomas and Fraser lakes also shows this.

#### IV. LIST OF, AND NOTES ON, THE TYPICAL ROCKS OF EACH OF WHICH 25 SPECIMENS WERE COLLECTED.

These specimens are, in many cases, from the exact spot from which the original specimens were collected and described, the writer having visited many of these localities with Prof. Winchell on two of his trips through this region. Some of the specimens from localities, not before visited by the writer, may not always be exactly the same as the original specimens, but they are very nearly the same,—as near as could be found from the notes given him. Only brief descriptions of many localities were accessible in the field, as the 16th annual report had not then been printed.

After each number the place where the original description can be found, is given.\*

No. 744, (84):—Ogishke-Muncie conglomerate from Camper's island, Ogishke-Muncie lake; S. E.  $\frac{1}{4}$  of S. W.  $\frac{1}{4}$  sec. 23, T. 65-6. The specimens were taken from the southwest corner of the island. They show the matrix of the conglomerate, with sometimes a few of the smaller pebbles. The specimens collected are coarser and not as green as the original No. 744. 10th An. Rep., p. 91.

No. 751:—Hornblende porphyry, S. E.  $\frac{1}{4}$  of sec. 30, T. 65-6; Kekequabic lake. No specimens of this were collected, as the rock was not found in place by the writer. It is similar to No. 1059 (97), except that the ground mass is inclined to brownish, while No. 1059 is yellowish green. See No. 1059 10th An. Rep., p. 92.

No. 868, (278):—Green chloritic schist embracing fragments of jaspilite, north of Cady house, Tower. This rock evidently grades into No. 908 (281). 15th An. Rep., p. 267-8.

No. 892, (279):—Rough, scarcely banded jasper, north wall Stone mine, Tower. Owing to changes in the walls of the mine, this rock was not seen 75 feet below the surface; the specimens collected were taken about 25 feet below the rock surface. 15th An. Rep., p. 256.

No. 903, (280):—Red jasper with darker bands of iron ore; Stone mine, Tower.

No. 908, (281):—Matrix of conglomerate occurring north of the Cady house, Tower. 15th An. Rep., p. 269.

No. 916, (282):—Breccia, now converted to hematite and a floury white mineral; Breitung mine, Tower. 15th An. Rep., p. 250.

No. 921, (283):—Black or purplish-black clay slate, S. W.  $\frac{1}{4}$  of S. W.  $\frac{1}{4}$  sec. 6, T. 62-15; south shore of Pine island, Vermilion lake, a few feet east of the line between ranges 15 and 16. See notes on Pine island in this report. 15th An. Rep., p. 303.

No. 950, (128):—Siliceous schist or bedded quartzite from "Silver City," N. E.  $\frac{1}{4}$  of sec. 32, T. 63-11. The specimens were obtained from the shore, forty feet nearer the rapids than the southern tunnel is. 15th An. Rep., p. 329.

No. 954, (114):—Coarse gabbro, east side of Birch lake. The specimens were taken from the same exposure from which the

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\* These are the numbers given by Prof. Winchell in the 10th, 15th and 16th annual reports. The numbers in parentheses and all under 300 are those given by the writer.



original specimen came. In the description (16th An. Rep.) this locality is given as the N. W.  $\frac{1}{4}$  of sec. 20, T. 61-11, and in the catalogue of rock samples as the N. W.  $\frac{1}{4}$  of Sec. 17. Judging from distances to known points (this town has not been surveyed) the writer thinks that the N. W.  $\frac{1}{4}$  of sec. 17 is the right place. 15th An. Rep., p. 332.

No. 958, (121):—Breccia of mica-schist cemented by granite from the little point in the N. E.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 21, T. 61-12, Birch lake. Where the mica-schist showed the schistose structure to the best advantage, the rock was too much decayed for good specimens. 15th An. Rep., p. 333.

No. 960:—See No. 1138.

No. 963, (123):—Fine-grained red syenite, resembling the "red rock" of Grand Marais, from the S. W.  $\frac{1}{4}$  of S. W.  $\frac{1}{4}$  sec. 24, T. 61-12, Birch lake. The specimens were collected just east of the line between secs. 23 and 24, and about 300 feet back from the lake shore. 15th An. Rep., p. 336.

No. 979, (111):—Fine syenite from the "Palisades," N. W.  $\frac{1}{4}$  of S. W.  $\frac{1}{4}$  sec. 4, T. 62-10. The specimens are from near the southern end of the "Palisades" and about 20 feet above the water. The rock varies some and has an almost gneissic structure. The specimens collected represent the prevailing variety; this grades into No. 112, which is gray, and into No. 113, which is coarser. 15th An. Rep., p. 342.

No. 989, (101):—Fine grained, slightly micaceous quartzose rock from the south shore of the Kawishiwi river in the N. W.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 27, T. 63-10. 15th An. Rep., p. 352.

No. 991, (102):—Gray, red-weathering gneissic rock from an island in the N. W.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 27, T. 63-10, Kawishiwi river. The southern part of the island is composed of this rock, but on the central and northern parts the rock has many darker hornblendic bands which show very plainly on the weathered surface (No. 103). One much darker hornblendic band, about a foot in width, was seen; this (No. 104) seemed to be distinct from the others, which graded into one another. No. 991 also showed banding on weathered surfaces. 15th An. Rep., p. 352.

No. 994, (105):—Reddish chloritic syenite; N. E.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 27, T. 63-10; south shore of Kawishiwi river. This rock is hardly a red syenite like the original No. 994, but in places it is reddish,—see No. 107, which is similar to the original No. 994; not enough of this reddish rock could be found for the specimens. This rock (No. 105) seems to grade into No. 108 and

No. 109; the latter has some biotite and the exposures show a rather distinct bedding, while the exposures of No. 105 do not. Lenticular pieces of a greenish chloritic schist (No. 110) are found in a few places in No. 105. 15th An. Rep., p. 353.

No. 1044, (85):—Gneissic (syenitic?) rock, south shore of the little bay at the southeast side of Kekequabic lake, S. E.  $\frac{1}{4}$  of S. W.  $\frac{1}{4}$  sec. 2, T. 64-7. The specimens were taken from the only outcrop, on the south side of this bay, where hammer marks were seen. The rock contains many small dark masses, apparently chloritic, as shown by No. 85; none of these were over an inch in diameter. In a few places this dark mineral is collected into rather indistinct vein-like forms, but there is no marked contrast between these "veins" and the surrounding rock. 15th An. Rep., p. 361.

No. 1049, (87):—Biotite gabbro, somewhat pebbly, east side of sec. 4, T. 64-7, Kekequabic lake. The water was so high that the specimens could not be collected in the bay in the east side of sec. 4, so they were taken from the N. E.  $\frac{1}{4}$  of the S. E.  $\frac{1}{4}$  of sec. 4; here the rock seems to be the same as in the bay. The pebbly structure of the rock is shown only where it has been water worn. At this place the gabbro lies on some gray earthy slate. The slate was down at the water's edge and there was only a very small area of it, so not much could be determined concerning it. No abrupt contact could be seen between the two rocks; there was a transition, occupying perhaps two feet, from the gray earthy slate (No. 88), through Nos. 89 and 90, to the gabbro (No. 87). 15th An. Rep., p. 364.

No. 1050, (91):—Fine-grained gabbro from the top of the same bluff, as from which No. 1049 was taken. The specimens were taken about 35 feet above the water. N. E.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  of sec. 4, T. 64-7, Kekequabic lake. 15th An. Rep., p. 364.

No. 1059, (97):—Hornblende porphyry from the north shore of Kekequabic lake, N. E.  $\frac{1}{4}$  of sec. 36, T. 65-7. Within a few inches this rock varies much, the hornblende crystals becoming smaller and fewer in number and sometimes almost wanting, as shown by the small specimen (No. 97). The rock is very hard and tough and rings like iron when struck by the hammer; it frequently contains crystals of iron pyrites. See No. 751. 15th An. Rep., p. 367.

No. 1068, (70):—Doleryte, from N. E.  $\frac{1}{4}$  of sec. 24, T. 65-6; about a quarter of a mile southeast from the shore of Ogishke-Muncie lake. This rock contains considerable of a pinkish min-

eral (probably calcite); this mineral also occurs in small veins or fissures in the rock, shown by No. 71. 15th An. Rep., p. 371; also, 16th An. Rep., p. 95-6.

No. 1073, (69):—Coarse-jointed massive rock, apparently igneous, mouth of Ogishke-Muncie creek, N. E.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 26, T. 65-6; Ogishke-Muncie lake. This rock overlies the following, which see. In some places the rock has cherty spots, as shown in the smaller specimen (No. 69), probably pieces of the slate (No. 1074). 15th An. Rep., p. 372.

No. 1074, (68):—Fissile black slate, baked and closely jointed, mouth of Ogishke-Muncie creek, N. E.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 26, T. 65-6; Ogishke-Muncie lake. No specimens could be obtained at the contact with the overflowing rock (see above, No. 1073), as here the slate was much broken; the specimens collected are from the point made by the creek and the lake shore, which point is but a few yards west of No. 1073. At this place the slate plainly dips 20° S. of E. at an angle of about 80°. No. 68A was obtained just below the contact, while No. 68 B is from a piece of the slate included in the overlying rock. The slate has, in places, a decidedly conchoidal fracture as shown by No. 68C. The weathered surfaces on the specimens marked 68 show an apparently sedimentary banding which is parallel with the slaty structure. 15th An. Rep., p. 372.

No. 1094, (86):—Gray porphyritic rock, representing an altered conglomerate, from the point which has the corners of secs. 29, 30, 31, and 32, T. 65-6; north shore of Kekequabic lake. The specimens were taken from the southeast side of the point, or in the N. W.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 32, T. 65-6. No. 86 shows a small one of the greenish nodules or pebbles. 15th An. Rep., p. 368; 16th An. Rep., p. 100.

No. 1098, (96):—Conglomeritic chlorite schist, from the north shore of Kekequabic lake where it is crossed by the line between T. 65-6 and 65-7. The small amount of the rock left uncovered by the porphyry and its decayed condition made it rather difficult to get good specimens. 15th An. Rep., p. 367.

No. 1100, (93):—Reddish syenite, island in sec. 3, T. 64-7, Kekequabic lake. No. 1100 is described from the most westerly island in the lake, but this island, which is just east of the point in the S. W.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  of sec. 3, is small and low and is made up of a condition of the green chlorite schist (No. 94); the small island, just northeast of the last, seems to have no rock in place, but along the shore are many fragments of feldspar porphyry



(No. 95). The specimens (No. 1100) were taken from a larger island in the S. E.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 3, just west of Animike island. 15th An. Rep., p. 362.

No. 1109, (100):—Felsitic schist, from the portage from Fall lake to Newton lake, S. W.  $\frac{1}{4}$  of sec. 3, T. 63–11. The specimens were collected from the south, or Fall lake, end of the portage. 15th An. Rep., p. 356.

No. 1128, (129):—“Gabbro” cut by intrusive syenite; N. W.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 6, T. 62–11, White Iron lake. See No. 1129, 15th An. Rep., p. 331.

No. 1129, (130):—Intrusive granite (syenite), N. W.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  of sec. 6, T. 62–11, White Iron lake. Nos. 1128 and 1129 are from the place from which Dr. Wadsworth took the original specimens. The “gabbro” is not similar to the ordinary labradorite gabbro; it is perhaps a biotitic diabase. No. 131 is the syenite taken from a dike in the diabase. No. 1129 (130) is, I think, a fair sample of the syenite found about White Iron lake. 15th An. Rep., p. 331.

No. 1132, (127):—Black hornblende gneiss, east shore of White Iron lake, just south of the line between secs. 6 and 7 of T. 62–11. A set of specimens could not be obtained, as the gneiss only occurred in small masses in the syenite and here the surface was worn smooth by glaciation. No. 127 shows the contact between the gneiss and the syenite. 15th An. Rep., p. 331.

No. 1134, (124):—Micaceous “gabbro,” or rather biotite hornblende schist, cut by veins of granite (syenite); N. W.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 12, T. 62–12, east side of White Iron lake. The specimens were collected from the place where Dr. Wadsworth obtained the original ones. About 70 yards west of this place is the outcrop described by Dr. Alex. Winchell in the 15th annual report (see p. 77, halt 211). Here the hornblende schist is represented by No. 125, and the granite by No. 126. These two outcrops are connected by a ridge, in which the rock is not exposed, but the schist found at the east end (No. 124) is probably the same as that at the other end (No. 125). 15th An. Rep., p. 331.

No. 1137, (122):—Fine-grained gabbro, looking like diabase, from a point a short distance west of the line between secs. 24 and 25, T. 62–12; north shore of Birch lake. This seems to be a finer-grained condition of the ordinary labradorite gabbro. The specimens were obtained from the west side of the little bay in the S. E.  $\frac{1}{4}$  of S. W.  $\frac{1}{4}$  sec. 24. 15th An. Rep., p. 332.



No. 1138. Ferruginous olivine rock, about 15 rods from the shore; S. E.  $\frac{1}{4}$  of S. W.  $\frac{1}{4}$  sec. 24, T. 62-12; Birch lake. No specimens of this were collected, as a set of 25 (No. 960) was collected in 1886. It is a part of the great quartzite formation (Animike) lying along the southern side of the Giant's range. 15th An. Rep., pp. 332 and 335.

No. 1278, (8):—Kewatin schist, mouth of the creek, east end of the long bay, north side of Gunflint lake. This is the most eastern exposure of the Kewatin on Gunflint lake. The rock at the shore was so cracked and broken that only four specimens were collected; these are marked 1,278A (8A). The rest of the specimens were taken from a low outcrop about 10 rods back from the shore; the schist here is similar to that at the shore, but is not so much decayed and is apparently more siliceous. 16th An. Rep., p. 67.

No. 1282, (9):—Gray gneissoid rock, slightly porphyritic; shore of the long bay, north side of Gunflint lake. The specimens collected do not answer exactly to the description, but they are a part of the same rocks. 16th An. Rep., p. 68.

No. 1283, (10):—Porphyrel; bluff north shore of Gunflint lake. The specimens were taken from a vertical cliff on the lake shore, about three-fourths of a mile west of the east end of the long bay. 16th An. Rep., p. 68.

No. 1312, (60):—Fine-grained trap, from the west side of the narrows of Gunflint lake; S. E.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  of sec. 19, T. 65-3. In places this trap holds crystals of feldspar which sometimes are an inch long.

No. 1316, (46):—Syenitic gneiss from the north side of Black-fly bay, Gunflint lake. 16th An. Rep., p. 73.

No. 1318, (61):—Diabase dike in the syenite, first falls of Gunflint river, north of Gunflint lake. See this report under Gunflint lake.

No. 1340, (43):—Purplish-gray, vitreous quartzite (Pewabic quartzite),  $\frac{1}{2}$  mile west of the ore pit, Chub lake; N. E.  $\frac{1}{4}$  of sec. 29, T. 65-4. 16th An. Rep., p. 85.

No. 1371, (72):—"Marble" from east side of Ogishke-Muncie lake; N. E.  $\frac{1}{4}$  of sec. 24, T. 65-6. The place where the specimens were collected is probably where the section (p. 371, 15th An. Rep.) was made. No. 73 shows a softer, more schistose portion of No. 72. No. 74 are some of the angular pieces included in No. 72. No. 75 shows a soft greenish (probably talc) mineral found in the "marble" (No. 72). 16th An. Rep., pp. 95 and 96; also, under No. 1069, 15th An. Rep., p. 371.

No. 1409, (92):—Chloritic schist from the small island near the north shore and just west of the narrows of Kekequabic lake. This island is in the N. W.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 36, T. 65-7; there is a much smaller island just east of it and also one north of it. 16th An. Rep., p. 102.

No. 1428, (98);—Dark siliceous slate, from the E.  $\frac{1}{2}$  of N. E.  $\frac{1}{4}$  sec. 28, T. 65-7; Knife lake. This slate varies from grayish to black; the specimens collected are gray, as this colored rock made up most of the point. 16th An. Rep., p. 109.

No. 1436, (99);—Micaceo-syenitic gneiss, from Opinon island, Basswood lake. This island is in sec. 10 (probably N. E.  $\frac{1}{4}$  of S. W.  $\frac{1}{4}$ ), T. 64-10. 16th An. Rep., p. 110.

Twenty-five specimens of the *conglomeritic syenite* from Sagana lake were also collected. The writer numbered these 66. No. 67 shows the syenite. This rock is described by Dr. Alex. Winchell in the 16th An. Rep., pp. 219-222, and p. 334; also in the American Geologist, vol. III, No. 3, p. 153.

## V. BAROMETRICAL ELEVATIONS.

On the trip from Gunflint lake south to Brulé lake and north to Ogishke-Muncie lake the elevation of each lake was noted from readings of an aneroid barometer. The following table gives the elevation of each lake above lake Superior and also above the sea level. The elevation of Gunflint lake (the starting point) above lake Superior,—1,052 feet,—is taken from the 9th An. Rep., p. 81. The highest water noted is Lost lake which is 1,427 feet above lake Superior, or 2,029 feet above the sea.

	Feet above lake Superior.	Feet above the sea.
Gunflint lake.....	1052	1654
Loon lake (195 ft. above Gunflint lake),.....	1247	1849
Mayhew lake (110 feet above Loon lake),.....	1357	1859
Iron lake (same hight as Mayhew lake),.....	1357	1859
Portage lake (25 ft. above Iron lake),.....	1382	1984
Poplar lake (20 ft. below Portage lake),.....	1362	1964
Straight lake (25 ft. below Poplar lake),.....	1337	1939
Caribou lake (10 ft. below Straight lake),.....	1327	1929
Meed's lake (10 ft. above Caribou lake),.....	1337	1939
North Brulé lake (20 ft. below Caribou lake),.....	1307	1909
Stray lake (30 ft above North Brulé lake),.....	1337	1937
Gaskanas lake (15 ft. above Stray lake),.....	1352	1954
Winchell lake (30 ft. above Gaskanas lake),.....	1382	1984
Sham lake (15 ft. above Winchell lake),.....	1397	1999

	Feet above lake Superior.	Feet above the sea.
Lost lake (30 ft. above Sham lake),.....	1427	2029
Brulé lake (75 ft. below Lost lake),.....	1352	1954
Lake Georgia (6 ft. below Brulé lake),.....	1346	1948
Surveyor's lake (1 ft. above lake Georgia),.....	1347	1949
Found lake (same hight as Surveyor's lake),.....	1347	1949
Lake Ida Belle (30 ft. below Found lake),.....	1317	1919
Narrow lake (15 ft. below lake Ida Belle),.....	1302	1904
Kiskadinna lake (25 ft. below Narrow lake),.....	1277	1879
Round lake (60 ft below Kiskadinna lake), .....	1217	1819
Draper lake (35 ft. above Round lake),.....	1252	1854
Lake No. 1 (40 ft. above Draper lake),.....	1292	1894
Lake No. 2 (same hight as lake No. 1),.....	1292	1894
Lake No. 3 (15 ft. above lake No. 2),.....	1307	1909
Lake No. 4 (40 ft. above lake No. 3),.....	1347	1949
Lake No. 5 (same hight as lake No. 4),.....	1347	1949
Lake No. 6 (25 ft. below lake No. 5),.....	1322	1944
Flying Cloud lake (30 ft. below lake No. 6),.....	1292	1894
Kakego lake (65 ft. below Flying Cloud lake),.....	1227	1829
Clothes Pin lake (60 ft. below Kakego lake),.....	1167	1769
Gabemichigama lake (20 ft. below Clothes Pin lake),.....	1147	1749
Agamok lake (3 ft. below Gabemichigama lake),.....	1144	1746
Fox lake (30 ft. below Agamok lake),.....	1114	1716
Ogishke-Muncie lake (60 ft. below Fox lake),.....	1054	*1656
Wilder lake,.....	1102	†1704
Lake Alice (4 ft. above Wilder lake),.....	1106	1708

# VI. CATALOGUE OF ROCK SAMPLES TO ILLUSTRATE THE FOREGOING NOTES; COLLECTED BY ULY. S. GRANT DURING THE SUMMER OF 1888.

Most of these rock samples are of museum size; and in many cases more than one specimen was collected, to represent a certain number. This is especially true of the iron ores, of each of which several pieces were taken for analysis. The samples have been deposited in the rooms of the survey. They are numbered from 1 up to 298, inclusive; the figures are green,—paris green and shellac dissolved in alcohol being used; after each number the letter G is placed.

Nos. 132–146, inclusive, were placed on an island which was soon after overrun by a fire, and all the labels destroyed and the specimens discolored. These specimens have not been preserved:

\* From figures in the 9th An. Rep., p. 84, Ogishke-Muncie lake is 1,611 ft. above the sea; and from the 15th An. Rep., p. 384, it is 1,507 ft. above the sea.

† 15th An. Rep., p. 384.

1. Magnetic iron slate and jasper, N.  $\frac{1}{2}$  of sec. 33, T. 66-6; Ottertrack lake; 80 rods south of the lake shore. P. 151.
2. Same as No. 1. P. 151.
3. Magnetic iron slate and jasper, N. E.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 27, T. 66-6 (if the U. S. sections were extended northward); north shore of Ottertrack lake. P. 151.
4. Graywacke-like rock north shore of Ottertrack lake. just west of No. 3. P. 151.
5. Graywacke-like rock, north shore of Ottertrack lake, just east of No. 3. P. 151.
6. Coarse syenite, small island in the S. E.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 13, T. 65-4; Gunflint lake. P. 152.
7. Hornblende schist in syenite; same locality. P. 152.
8. Sericitic schist, at the shore near the east end of the long bay on the north side of Gunflint lake. Same as No. 1278 (N. H. W.). P. 199.
- 8A. Same as No. 8, but apparently more siliceous. P. 199.
9. Gray gneissic rock, almost porphyrel; north shore of the long bay on the north side of Gunflint lake. Same as No. 1282 (N. H. W.). P. 199.
10. Porphyrel, on the shore about three-fourths of a mile west of the east end of the long bay on the north side of Gunflint lake. Same as No. 1283 (N. H. W.). P. 199.
11. Sericitic schist, north shore of Gunflint lake; section I. P. 152.
12. Earthy schist, north of Gunflint lake; section I. P. 153.
13. Fine porphyrelloid rock, north of Gunflint lake; section I. P. 153.
14. A coarser condition of 13, north of Gunflint lake; section I. P. 153.
15. A finer condition of 13, north of Gunflint lake; section I. P. 153.
16. Black slate, north of Gunflint lake; section I. P. 153.
17. Trap rock, north of Gunflint lake; section I. P. 153.
18. Fine trap from outer edge of dike, north of Gunflint lake; section I. P. 153.
19. Trap from centre of same dike, north of Gunflint lake; section I. P. 153.
20. Sericitic schist, north of Gunflint lake; section I. P. 153.
21. Black slate, north of Gunflint lake; section I. P. 153.
22. Fine gabbro, north of Gunflint lake; section I. P. 153.
23. Black slate, north of Gunflint lake; section I. P. 153.



24. Porphyrel, north of Gunflint lake; section I. P. 154.
25. Gray, somewhat micaceous schist; north of Gunflint lake; section I. P. 154.
26. Hornblende schist, north of Gunflint lake; section I. P. 154.
27. Hornblende schist, north of Gunflint lake; section I. P. 154.
28. Mica-schist, north of Gunflint lake; section I. P. 154.
29. Feldspathic schist, north of Gunflint lake; section I. P. 154.
30. Hornblende schist, north of Gunflint lake; section I. P. 154.
31. Hornblende schist, north of Gunflint lake; section I. P. 154.
32. Mica-schist, north of Gunflint lake; section I. P. 154.
33. Hornblende schist, north of Gunflint lake; section I. P. 154.
34. Syenitic gneiss, north of Gunflint lake; section II. P. 155.
35. Hornblende schist inclosed in gneiss, north of Gunflint lake; section II. P. 156.
36. Trap from dike in gneiss, north of Gunflint lake; section II. P. 156.
37. Magnetitic portion of this dike, north of Gunflint lake; section II. P. 156.
38. Gray earthy slate, north of Gunflint lake; section II. P. 157.
39. Porphyrel, north of Gunflint lake; section II. P. 157.
40. Schistose dike rock, north of Gunflint lake; section II. P. 157.
41. Finer portion of No. 40, north of Gunflint lake; section II. P. 157.
42. Porphyrel inclosed in dike, north of Gunflint lake; section II. P. 157.
43. Purplish-gray, vitreous quartzite (Pewabic quartzite); N. E.  $\frac{1}{4}$  of sec. 29, T. 65-4, Chub lake. Same as No. 1340 (N. H. W.). P. 199.
44. Magnetic iron ore from the pit at Chub lake, N. E.  $\frac{1}{4}$  of Sec. 29, T. 65-4. P. 160.
45. Quartzite core from drill; Chub lake, N. E.  $\frac{1}{4}$  of sec. 29, T. 65-4. P. 160.
46. Syenitic gneiss from the north side of Blackfly bay, Gunflint lake. Same as No. 1316 (N. H. W.). P. 199.

47. Gray, red-weathering schist, north shore of Gunflint lake; section III. P. 157.

48. Black flinty slate, north of Gunflint lake; section III. P. 157.

49. Sericitic schist, north of Gunflint lake; section III. P. 157.

50. Gabbro, north of Gunflint lake; section III. P. 157.

51. Hornblende-feldspar schist, north of Gunflint lake; section III. P. 158.

52. Hornblende schist, north of Gunflint lake; section III. P. 158.

53. Mica-schist, north of Gunflint lake; section III. P. 158.

54. Hornblende schist, north of Gunflint lake; section III. P. 158.

55. Very coarsely-crystalline hornblende schist, north of Gunflint lake; section III. P. 158.

56. Same as 55, north of Gunflint lake; section III. P. 158.

57. Reddish syenite, north of Gunflint lake; section III. P. 158.

58. Syenitic gneiss, north of Gunflint lake; section III. P. 158.

58A. Same as 58, but showing the gneissic structure better; north of Gunflint lake; section III. P. 158.

59. Syenitic gneiss, north of Gunflint lake; section III. P. 158.

60. Fine-grained trap, from the west side of the narrows of Gunflint lake; S. E.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 19, T. 65-3. Same as No. 1312 (N. H. W.). P. 199.

61. Diabase from dike in syenite, first falls of Gunflint river north of Gunflint lake. Same as No. 1318 (N. H. W.). P. 160.

61A. Fine condition of No. 61. P. 160.

62. Syenitic gneiss, first falls of Gunflint river north of Gunflint lake. P. 160.

63. A condition of No. 61. P. 161.

64. A condition of No. 61, showing pitted surface. P. 161.

65. Hornblende schist in No. 62; first falls of Gunflint river north of Gunflint lake. P. 161.

66. Conglomeritic syenite from Saganaga lake. P. 200.

67. Syenite, Saganaga lake. P. 200.

68. Black slate, mouth of Ogishke-Muncie creek, N. E.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 26, T. 65-6; Ogishke-Muncie lake. Same as No. 1074 (N. H. W.). P. 197.

- 68A. Broken condition of No. 68. P. 197.
- 68B. Portion of No. 68 included in No. 69. P. 197.
- 68C. Showing conchoidal fracture of No. 68. P. 197.
69. Coarse-jointed massive rock, apparently igneous, mouth of Ogishke-Muncie creek, N. E.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 26, T. 65-6; Ogishke-Muncie lake. Same as No. 1073 (N. H. W.). P. 197.
70. Doleryte, about a quarter of a mile southeast from the shore of Ogishke-Muncie lake; N. E.  $\frac{1}{4}$  of sec. 24, T. 65-6. Same as No. 1068 (N. H. W.). P. 196.
71. Calcite from veins in No. 70.
72. "Marble" from east side of Ogishke-Muncie lake; N. E.  $\frac{1}{4}$  of sec. 24, T. 65-6. Same as No. 1371 (N. H. W.). P. 199.
73. Softer and more schistose portion of No. 72. P. 199.
74. Angular siliceous pieces in No 72. P. 199.
75. Portion of No. 72 showing a soft greenish mineral.
76. Gray quartzyte, S. E.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 24, T. 65-6; Ogishke-Muncie lake. P. 161.
77. Black slate, S. E.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 24, T. 65-6; Ogishke-Muncie lake. P. 161.
78. Siliceous band in No. 76. P. 162.
79. Transition rock from No. 78 to No. 82. P. 162.
80. Transition rock from No. 78 to No. 82. P. 162.
81. Transition rock from No. 78 to No. 82. P. 162.
82. Rock composed mostly of calcareous or dolomitic matter; S. E.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 24, T. 65-6; Ogishke-Muncie lake. P. 162.
83. Part of Ogishke-Muncie conglomerate; S. E.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 24, T. 65-6; Ogishke-Muncie lake. P. 162.
84. Matrix of Ogishke-Muncie conglomerate; from Camper's island, S. E.  $\frac{1}{4}$  of S. W.  $\frac{1}{4}$  sec. 23, T. 65-6; Ogishke-Muncie lake. Same as No. 744 (N. H. W.). P. 194.
85. Gneissic (syenitic?) rock, south shore of the little bay at the southeast corner of Kekequabic lake; S. E.  $\frac{1}{4}$  of S. W.  $\frac{1}{4}$  sec. 2, T. 64-7. Same as No. 1044 (N. H. W.). P. 196.
86. Gray porphyritic rock, from the point which has the corners of secs. 29, 30, 31, and 32, T. 65-6; Kekequabic lake. Same as No. 1094 (N. H. W.). P. 197.
87. Biotite gabbro, N. E.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 4, T. 64-7; Kekequabic lake. Same as 1049 (N. H. W.). P. 196.
88. Gray earthy slate, N. E.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 4, T. 64-7; Kekequabic lake. P. 196.
89. Transition from the slate (No. 88) to the gabbro (No. 87). P. 196.

90. Transition from the slate (No. 88) to the gabbro (No. 87). P. 196.
91. Fine-grained gabbro, from the top of the bluff from which No. 87 was taken; N. E.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 4, T. 64-7; Kekequabic lake. Same as No. 1050 (N. H. W.). P. 196.
92. Chlorite schist, N. W.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 36, T. 65-7; Kekequabic lake. Same as No. 1409 (N. H. W.). P. 168.
93. Reddish syenite, from an island in Kekequabic lake; S. E.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 3, T. 64-7. Same as No. 1100 (N. H. W.). P. 197.
94. A condition of the green chlorite schist, from island in the S. W.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 3, T. 64-7; Kekequabic lake. P. 197.
95. Feldspar porphyry, from an island just northeast of the last; S. W.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 3, T. 64-7; Kekequabic lake. P. 198.
96. Conglomeritic chlorite schist, from the north shore of Kekequabic lake where it is crossed by the line between T. 65-6 and T. 65-7. Same as No. 1098 (N. H. W.). P. 197.
97. Hornblende porphyry, from the north shore of Kekequabic lake; N. E.  $\frac{1}{4}$  of sec. 36, T. 65-7. Same as No. 1059 (N. H. W.). P. 196.
98. Gray siliceous slate, from Knife lake; E.  $\frac{1}{2}$  of N. E.  $\frac{1}{4}$  sec. 28, T. 65-7. Same as No. 1428 (N. H. W.). P. 200.
99. Micaceo-syenitic gneiss, from Opinini island, Basswood lake; sec. 10, T. 64-10. Same as No. 1436 (N. H. W.). P. 200.
100. Felsitic schist, from the south end of the portage from Fall lake to Newton lake; S. W.  $\frac{1}{4}$  of sec. 3, T. 63-11. Same as No. 1109 (N. H. W.). P. 198.
101. Fine grained, slightly micaceous, quartzose rock; south shore of Kawishiwi river; N. W.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 27, T. 63-10. Same as No. 989 (N. H. W.). P. 195.
102. Gray, red-weathering, gneissic rock, from an island in the N. W.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 27, T. 63-10; Kawishiwi river. Same as No. 991 (N. H. W.). P. 195.
103. Hornblendic band in No. 102. P. 195.
104. Hornblendic band in No. 102. P. 195.
105. Reddish chloritic rock, N. E.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 27, T. 63-10; south shore of Kawishiwi river. P. 195.
106. Hornblendic gneiss, N. E.  $\frac{1}{4}$  of sec. 27, T. 63-10; south shore of Kawishiwi river. P. 195.
107. Reddish chloritic syenite, N. E.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 27, T.



63-10; south shore of Kawishiwi river. Same as No. 994 (N. H. W.). P. 195.

108. Quartzose schist, grading into No. 105; same locality. P. 195.

109. Quartzose schist, with some biotite; same locality. P. 196.

110. Chloritic schist in No. 105; same locality. P. 196.

111. Fine syenite, from the "Palisades;" N. W.  $\frac{1}{4}$  of S. W.  $\frac{1}{4}$  sec. 4, T. 62-10. Same as No. 979 (N. H. W.). P. 195.

112. Fine grayish syenite, a condition of No. 111; same locality. P. 195.

113. Fine reddish syenite, a condition of 111; same locality. P. 195.

114. Coarse gabbro, east side of Birch lake, N. W.  $\frac{1}{4}$  of sec. 17, T. 61-11. Same as No. 954 (N. H. W.). P. 194.

115. Magnetitic quartzite, S. W.  $\frac{1}{4}$  of sec. 9, T. 60-12; south of Birch lake. P. 163.

116. Magnetitic quartzite, N. W.  $\frac{1}{4}$  of sec. 10, T. 60-12; south of Birch lake. P. 163.

117. Biotitic gabbro, S. W.  $\frac{1}{4}$  of sec. 10, T. 60-12; south of Birch lake. P. 162.

118. Same as No. 117, but showing dark bands. Same locality. P. 162.

118A. Same as 118, but from a loose piece. P. 162.

119. Gabbro, N.  $\frac{1}{2}$  of sec. 15, T. 60-12; south of Birch lake. P. 162.

120. Gabbro, N. E.  $\frac{1}{4}$  of sec. 15, T. 60-12; south of Birch lake. P. 163.

121. Breccia of mica-schist cemented by granite, from the little point in the N. E.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 21, T. 61-12; Birch lake. Same as No. 958 (N. H. W.). P. 195.

122. Fine-grained gabbro, from the west side of the little bay in the S. E.  $\frac{1}{4}$  of S. W.  $\frac{1}{4}$  sec. 24, T. 62-12; Birch lake. Same as No. 1137 (N. H. W.). P. 198.

123. Fine-grained red syenite, from the S. W.  $\frac{1}{4}$  of S. W.  $\frac{1}{4}$  sec. 24, T. 61-12; just east of the line between secs. 23 and 24, and 300 feet north from the shore of Birch lake. Same as No. 963 (N. H. W.). P. 195.

124. Biotite hornblende schist, N. W.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 12, T. 62-12; east side of White Iron lake. Same as No. 1134 (N. H. W.). P. 198.

125. Biotite hornblende schist, N. W.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 12, T. 62-12; east side of White Iron lake; 70 yards west of No. 124. P. 198.

126. Granite cutting No. 125; same locality. P. 198.
127. Black hornblende gneiss, just south of the line between secs. 6 and 7, T. 62-11; east shore of White Iron lake. This specimen shows the contact between the syenite and hornblende gneiss. Same as No. 1132 (N. H. W.). P. 198.
128. Siliceous schist, from "Silver City;" N. E.  $\frac{1}{4}$  of sec. 32, T. 63-11. Same as No. 950 (N. H. W.). P. 194.
129. Biotitic diabase (?) cut by intrusive syenite, N. W.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 6, T. 62-11, White Iron lake. Same as No. 1128 (N. H. W.). P. 198.
130. Syenite cutting No. 129; same locality. Same as No. 1129 (N. H. W.). P. 198.
131. Syenite taken from a dike in No. 129; same locality. P. 198.
132. Gabbro, north side of the little bay in the S. W.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 15, T. 63-9; Kawishiwi river. P. 163.
133. Magnetitic iron ore in the gabbro, S. E.  $\frac{1}{4}$  of sec. 15, T. 63-9. P. 163.
134. Muscovado, S. E.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 15, T. 63-9; 60 yards northwest of the quarter post between secs. 14 and 15. P. 163.
135. Magnetitic iron ore; same locality as No. 134. P. 163.
136. Gabbro, showing gneissic structure; N. W.  $\frac{1}{4}$  of sec. 5, T. 61-9; hill on east bank of stream. P. 164.
137. Gabbro, showing banding in No. 138; S. W.  $\frac{1}{4}$  of sec. 5, T. 61-9; hill on west bank of stream. P. 165.
138. Gabbro, from same locality as No. 137. P. 165.
139. Red syenitic gneiss; S.  $\frac{1}{2}$  of sec. 32, T. 63-10; from a small island near the southern shore of the lake. P. 165.
140. Red syenite; S.  $\frac{1}{2}$  of sec. 32, T. 63-10; from a small island just north of the island where No. 139 was found. P. 165.
141. Syenite, with large crystals of hornblende; west side of the little bay in the N. W.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 32, T. 63-10. P. 165.
142. Light gray gneiss; at the portage in the N. E.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 31, T. 63-10. P. 165.
143. Hornblende schist(?) in No. 142; same locality. P. 165.
144. Dark hornblende rock, from the southern shore of the lake; S.  $\frac{1}{2}$  of sec. 32, T. 63-10. P. 166.
145. Transition from No. 144 to the syenite like No. 140; same locality as No. 144. P. 166.
146. To illustrate the same transition as No. 145; same locality. P. 166.

147. Coarse gabbro; west side of the little bay in the S. W.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 35, T. 62-8; lake Isabelle. P. 166.
148. Granulyte vein in the gabbro; a few rods north of No. 147. P. 166.
149. Very coarse gabbro; from cliff on the west side of the larger bay in the N. W.  $\frac{1}{4}$  of sec. 35, T. 62-8; lake Isabelle. P. 166.
150. Trap rock, S. W.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 35, T. 62-8; lake Isabelle. P. 166.
151. Coarser condition of No. 150; same locality. P. 166.
152. Coarser decayed condition of No. 150; same locality, but a few rods back from the shore. P. 166.
153. Coarser condition of No. 150; same locality as No. 152. P. 166.
154. Condition of No. 150, containing patches of biotite; on the shore, a little north of No. 150. P. 166.
155. A decayed condition of No. 154; same locality. P. 166.
156. A coarser condition of No. 154 and No. 155; same locality. P. 166.
157. Same trap, near contact with the gabbro; N.  $\frac{1}{2}$  of N. E.  $\frac{1}{4}$  sec. 35, T. 62-8, lake Isabelle; on the shore, a few steps north of No. 156. P. 167.
158. Fine diabase from dike, N. E.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 35, T. 62-8; lake Isabelle. P. 167.
159. Diabase from dike, S. W.  $\frac{1}{4}$  of sec. 30, T. 62-7; lake Isabelle. P. 167.
160. Finer diabase from edge of the same dike from which No. 159 was taken. P. 167.
161. Fine diabase from dike, W.  $\frac{1}{2}$  of sec. 31, T. 62-7; lake Isabelle. P. 167.
162. Very coarse gabbro, north shore of Bellissima lake; probably from sec. 27, T. 61-7. P. 167.
163. Gray feldspathic rock, S. W.  $\frac{1}{4}$  of sec. 21, T. 60-6; Pine lake. P. 163.
- 163A. Portion of No. 163 showing dark siliceous fragment; same locality as No. 163. P. 168.
- 163B. Transition from No. 163 to No. 164; same locality. P. 168.
164. Granulyte, S. W.  $\frac{1}{4}$  of sec. 21, T. 60-6; Pine lake. P. 168.
- 164A. A darker and more siliceous condition of No. 164; same locality. P. 168.
165. Fine trap, S. W.  $\frac{1}{4}$  of sec. 21, T. 60-6; Pine lake. P. 168.
- 165A. No. 165 containing fragments of No. 164; same locality. P. 168.

- 165B. A condition of No. 155 A; same locality. P. 168.
166. Diabasic rock, N. W.  $\frac{1}{4}$  of sec. 28, T. 60-6; Pine lake. P. 168.
167. Diabasic rock, west shore of Pine lake; T. 60-6. P. 168.
168. Very fine diabasic rock, west shore of Pine lake; T. 60-6. P. 168.
169. Very fine diabasic rock, west shore of Pine lake; T. 60-6. P. 168.
170. Micaceous schist, from the syenite; north of Gunflint lake. P. 158.
171. Hornblendic schist, from the syenite; north of Gunflint lake. P. 158.
172. Coarse hornblendic schist, from the syenite; north of Gunflint lake. P. 158.
173. Syenite holding hornblendic schist fragments; north of Gunflint lake. P. 159.
174. Synenitic gneiss, north of Gunflint lake. P. 159.
175. Gabbro, S. W.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 36, T. 65-3; south shore of Mayhew lake. P. 169.
176. Lighter colored gabbro, from end of little point in the S. W.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 36, T. 65-3; Mayhew lake. P. 169.
177. Magnetic iron ore in the gabbro; same locality as No. 176. P. 169.
178. Decayed gabbro; on the line between ranges 2 and 3, just south of Mayhew lake. P. 169.
179. Magnetic iron ore in the gabbro, from the point crossed by the line between secs. 31 and 32, T. 65-2; Iron lake. P. 170.
180. Magnetitic gabbro; same locality as No. 179. P. 170.
181. Fine muscovado-like rock, S. E.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 4, T. 64-2; Portage lake. P. 170.
182. Gabbro, from the little point in the N. W.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 12, T. 64-2; Poplar lake. P. 171.
183. Very fine gabbro, a condition of No. 182; same locality. P. 171.
184. Light gray gabbro with the labradorite collected together in spots; S. E.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 12, T. 64-2; Poplar lake. P. 171.
185. Gabbro, from hill a quarter of a mile north of Meeds' lake, and a little west of the centre of sec. 15, T. 64-2. P. 172.
186. Rough Animike slate, N. W.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 14, T. 64-2; Meeds' lake. P. 172.
187. Gabbro, S. E.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 29, T. 64-2; north shore of Winchell lake. P. 174.



188. Goarse gabbro, from the point crossed by the line between secs. 31 and 32, T. 62-4; south shore of Winchell lake. P. 174.

189. Gabbro, from the bluff in the N. W.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 31, T. 64-2; south shore of Winchell lake. P. 174.

190. Gabbro holding some pinkish feldspar, 20 feet above No. 189. P. 174.

191. Altered gabbro, reddish; ten feet above No. 190. P. 175.

192. Very dark syenite, two feet above No. 191. P. 175.

193. Very dark syenite, two feet above No. 191. P. 175.

194. Fine pinkish-gray syenite, just above No. 193. P. 175.

195. Pinkish-gray syenite, just above No. 194. P. 175.

196. Pinkish-gray syenite, from top of bluff; same locality. P. 175.

197. Showing change from gabbro to syenite; same locality. P. 175.

198. A condition of the gabbro, N. W.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 31, T. 64-2; Winchell lake, north end of portage to Sham lake. P. 175.

199. Altered gabbro, S. W.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 31, T. 64-2; north end of Sham lake, at the portage to Winchell lake. P. 176.

200. Fine red syenite, S. W.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 31, T. 64-2; east side of Sham lake. P. 176.

201. Altered gabbro (?), S. E.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 36, T. 64-3; near the southwest corner of Sham lake. P. 176.

202. Fine red syenite, S. E.  $\frac{1}{4}$  of S. W.  $\frac{1}{4}$  sec. 1, T. 63-3; west side of Lost lake. P. 176.

203. Dark siliceous trap, S. E.  $\frac{1}{4}$  of S. W.  $\frac{1}{4}$  sec. 12, T. 63-3, east side of bay; Brulé lake. P. 177.

204. A condition of the gabbro (?) a little south of No. 203. P. 177.

205. Gray feldspar porphyry, from the point in the S. E.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 13, T. 63-3; Brulé lake. P. 177.

206. Dark feldspar porphyry; same locality as No. 205. P. 177.

207. Red quartz porphyry; a few yards south of the last. P. 178.

207A. A darker and more siliceous condition of No. 207, near the contact with No. 208; same locality. P. 178.

208. Fine diabase, in contact with No. 207; same locality. P. 178.

209. Diabase-like rock, inclined to be amygdaloidal; small island in the S. E.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 18, T. 63-3; Brulé lake. P. 178.

210. Gabbro, S. W.  $\frac{1}{4}$  of sec. 18, T. 63-3; lake Georgia, a short distance west of the portage from Brulé lake. P. 179.

211. Dark feldspar porphyry; lake Georgia, a short distance west of No. 210. P. 179.

212. Trap; near its contact with the gabbro (No. 213); N. E.  $\frac{1}{4}$  of S. W.  $\frac{1}{4}$  sec. 13, T. 63-4; north side of lake Georgia. P. 179.

212A. Coarser condition of No. 212, farther from the contact. P. 179.

213. Gabbro in contact with trap (No. 212); same locality. P. 179.

214. Fine red syenite, S. W.  $\frac{1}{4}$  of sec. 12, T. 63-4; Surveyor's lake, on the portage going west to Found lake. P. 179.

215. Diabase, S.  $\frac{1}{2}$  of sec. 11, T. 63-4; hill on north shore of Found lake. P. 180.

216. Fine red syenite holding pieces of a darker rock; S.  $\frac{1}{2}$  of sec. 11, T. 63-4; north shore of Found lake. P. 180.

217. Gabbro, S. W.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 11, T. 63-4; lake Ida Belle. P. 180.

218. Diabase, S. W.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 11, T. 63-4,—just east of the line between secs. 10 and 11; lake Ida Belle. P. 180.

219. Fine diabase from dike in gabbro, little point in the S. E.  $\frac{1}{4}$  of sec. 10, T. 63-4; lake Ida Belle. P. 180.

220. Gabbro cut by the above dike. P. 180.

221. Fine-grained rock resembling "muscovado;" N. W.  $\frac{1}{4}$  of sec. 15, T. 63-4, near the line between secs. 10 and 15; southwest of lake Ida Belle. P. 181.

222. Large crystals of hornblende from vein in gabbro; southwest of lake Ida Belle, near the last locality. P. 181.

223. Gabbro rich in magnetite; southwest of lake Ida Belle, near the last locality. P. 181.

224. Magnetite from the gabbro; N.  $\frac{1}{2}$  of sec. 16, T. 63-4, near the line between secs. 9 and 16; southwest of lake Ida Belle. P. 181.

225. Fine red syenite, east side of entrance to the small bay in the N. W.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 10, T. 63-4; lake Ida Belle. P. 181.

226. Diabase from dike in gabbro; same locality as No. 225. P. 181.

227. Gabbro; same locality. P. 181.

228. Fine red syenite underlying the gabbro; north side of small island in the N. E.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 3, T. 63-4; lake Ida Belle. P. 182.

229. Dark rock cut by veins of the following; hill in the E.  $\frac{1}{2}$  of sec. 3, T. 63-4; lake Ida Belle. P. 182.
230. Fine red syenite from veins in No. 229; same locality. P. 182.
231. Showing contact of Nos. 229 and 230. P. 182.
232. Fine red syenite from vein in gabbro; S. E.  $\frac{1}{4}$  of sec. 35, T. 64-4, lake Ida Belle; on the portage going north. P. 183.
233. A decayed condition of the gabbro; S. E.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 26, T. 64-4; west shore near the north end of Narrow lake. P. 183.
- 233 $\frac{1}{2}$ . Muscovado, N. E.  $\frac{1}{4}$  sec. 33, T. 65-4; west shore of Draper lake. P. 184.
234. Fine gray syenite underlying the gabbro; probably in the S. W.  $\frac{1}{4}$  of sec. 29, T. 65-4; on the portage from lake No. 3 to lake No. 4. P. 184.
235. Gabbro overlying No. 234; same locality. P. 184.
236. Muscovado; same locality as No. 234. P. 185.
237. Fine gabbro, probably in S.  $\frac{1}{2}$  of sec. 29, T. 65-4; from little island in southern part of lake No. 4. P. 185.
238. Magnetic iron ore from the quartzite, S. E.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 25, T. 65-5; south shore of Flying Cloud lake, near its eastern end. P. 185.
239. Greenstone; same locality as No. 238. P. 185.
240. Magnetic iron ore from the quartzite; probably in the S. E.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  sec. 26, T. 65-5. P. 186.
241. Greenstone, 12 feet north of No. 240. P. 186.
242. Magnetitic quartzite, just south of No. 241. P. 186.
243. Magnetitic quartzite lying on No. 244; probably in the N. W.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 35, T. 65-5. P. 186.
244. Greenstone underlying No. 243; same locality. P. 186.
245. Fine gabbro, from the little point in the N. E.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 14, T. 64-7; Shoo-fly lake. P. 186.
246. Gabbro, west side of the small lake in the S. W.  $\frac{1}{4}$  of sec. 13, T. 64-7. P. 187.
247. Decayed condition of No. 246; west shore, near the south end of the small lake in the S. W.  $\frac{1}{4}$  of sec. 13, T. 64-7. P. 187.
248. Olivinitic iron ore, S. E.  $\frac{1}{4}$  of S. W.  $\frac{1}{4}$  sec. 14, T. 64-7; north side of Fraser lake. P. 187.
249. Coarse hornblende (?) rock; same locality. P. 187.
250. Olivinitic iron ore in No. 249; same locality. P. 187.
251. Magnetitic quartzite in No. 249; same locality. P. 187.
252. Olivinitic iron ore; same locality. P. 187.

253. Coarse hornblende(?) rock, not as much decayed as No. 249; same locality. P. 187.

254. Muscovado; same locality. P. 187.

255. No. 249 containing considerable magnetite; same locality. P. 187.

256. Same as No. 255 and showing a piece of No. 254; same locality. P. 187.

257. Muscovado from northern foot of the ridge; same locality. P. 188.

258. Magnetitic quartzite; same locality. P. 188.

259. Magnetitic quartzite showing banding; same locality. P. 188.

260. Showing contact of the quartzite and the hornblende rock (No. 249); same locality. P. 188.

261. Fine decayed gabbro, N. W.  $\frac{1}{4}$  of N. E.  $\frac{1}{4}$  sec. 23, T. 64-7; north shore of Fraser lake. P. 188.

262. Olivinitic iron ore; same locality. P. 188.

263. Magnetitic quartzite; same locality. P. 188.

264. Magnetitic quartzite, showing banding; same locality. P. 188.

265. Band of magnetite from the quartzite; same locality. P. 188.

266. Muscovado-like rock, from a bed in the quartzite; same locality. P. 188.

267. Olivinitic iron ore; same locality. P. 189.

268. Large crystals, apparently similar to No. 249, but containing much magnetite; same locality. P. 188.

269. Gabbro, N. E.  $\frac{1}{4}$  of sec. 28, T. 64-7; a quarter of a mile north of Thomas lake. P. 189.

270. Muscovado holding irregular blotches of a light colored feldspar; W.  $\frac{1}{2}$  of sec. 27, T. 64-7; north shore of Thomas lake. P. 189.

271. Hornblende (?) rock similar to Nos. 249 and 253, N. E.  $\frac{1}{4}$  of sec. 29, T. 64-7; north shore of Thomas lake. P. 189.

272. Magnetitic quartzite showing banding on weathered surface; same locality. P. 189.

273. Iron ore, apparently almost pure magnetite; same locality. P. 189.

274. Magnetitic quartzite; same locality. P. 190.

275. Same as No. 274. P. 190.

276. Pink gabbro holding small quantities of what appears to be a red oxide of iron; east side of the long bay in sec. 15, T. 63-7; lake Alice. P. 191.



277. Gabbro, S. E.  $\frac{1}{4}$  of N. W.  $\frac{1}{4}$  sec. 15, T. 63-7; east shore of lake Alice. P. 191.

278. Green chloritic schist; north of Cady house, Tower. Same as No. 868 (N. H. W.). P. 194.

279. Rough, scarcely banded jasper; 25 feet below the surface; Stone mine, Tower. Same as No. 892 (N. H. W.). P. 194.

280. Red jasper with darker bands of iron ore; Stone mine, Tower. Same as No. 903 (N. H. W.). P. 194.

281. Matrix of conglomerate occurring north of the Cady house, Tower. Same as No. 908 (N. H. W.). P. 194.

282. Breccia, now converted to hematite and a floury white mineral; Breitung mine, Tower. Same as No. 916 (N. H. W.). P. 194.

283. Black or purplish-black clay slate; south shore of Pine island, Vermilion lake; a few feet east of the line between ranges 15 and 16. Same as No. 921 (N. H. W.). P. 194.

284. Sericitic schist, rather siliceous; north shore of Pine island, Vermilion lake; on the line between ranges 15 and 16. P. 192.

285. Sericitic schist; Pine island. P. 192.

286. Green, somewhat sericitic schist; Pine island. P. 192.

287. Green, somewhat graywacke-like rock; Pine island. P. 192.

288. Rough sericitic schist; Pine island. P. 192.

289. Green, somewhat chloritic (?) schist; Pine island. P. 192.

290. Light gray argillaceous slate; Pine island. P. 192.

291. Coarser and rather sericitic condition of No. 290; Pine island. P. 192.

292. Coarser and rather sericitic condition of No. 290; Pine island. P. 192.

293. Coarser and rather sericitic condition of No. 290; Pine island. P. 192.

294. Light gray argillaceous slate; Pine island. P. 192.

295. Gray argillaceous slate; Pine island. P. 192.

296. A more siliceous condition of the slate; Pine island. P. 192.

297. Gray argillaceous slate; Pine island. P. 192.

298. Argillaceous slate showing both the gray and black bands; south shore of Pine island, on the line between ranges 15 and 16. P. 192.



V.

MUSEUM ADDITIONS.

Vol. III—28.

## SPECIMENS REGISTERED IN THE GENERAL MUSEUM IN 1887-88.

Serial No.	OBTAINED.		NAME.	Number of Specimen.	LOCALITY.	FORMATION.	COLLECTOR AND REMARKS.
	When.	Whence.					
6191	Jan., 1886.....	Geol. Survey.....	Gravel, largely limestone.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 80 feet.
6192	Jan., 1886.....	Geol. Survey.....	Sand and gravel.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 95 feet.
6193	Jan., 1886.....	Geol. Survey.....	Sand, mainly quartz.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 105 feet.
6194	Jan., 1886.....	Geol. Survey.....	Gravel and sand.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 112 feet.
6195	Jan., 1886.....	Geol. Survey.....	Sand with magnesian limestone.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 113 feet.
6196	Jan., 1886.....	Geol. Survey.....	Magnesian limestone and sand.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 114 feet.
6197	Jan., 1886.....	Geol. Survey.....	Magnesian limestone and sand.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 115 feet.
6198	Jan., 1886.....	Geol. Survey.....	Sand with some limestone.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 130 feet.
6199	Jan., 1886.....	Geol. Survey.....	Magnesian limestone.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 143 feet.
6200	Jan., 1886.....	Geol. Survey.....	Magnesian limestone.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 155 feet.
6201	Jan., 1886.....	Geol. Survey.....	Light-gray shale.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 165 feet.
6202	Jan., 1886.....	Geol. Survey.....	Battered films of metallic iron.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 172 feet.
6203	Jan., 1886.....	Geol. Survey.....	Gray shale, sandy.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 210 feet.
6204	Jan., 1886.....	Geol. Survey.....	Gray shale.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 218 feet.
6205	Jan., 1886.....	Geol. Survey.....	Calcareous shale.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 230 feet.
6206	Jan., 1886.....	Geol. Survey.....	Compact, light-colored limestone.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 234 feet.
6207	Jan., 1886.....	Geol. Survey.....	Mainly magnesian limestone.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 237 feet.
6208	Jan., 1886.....	Geol. Survey.....	Mainly white quartz sand.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 238 feet.
6209	Jan., 1886.....	Geol. Survey.....	Mainly white quartz sand.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 240 feet.
6210	Jan., 1886.....	Geol. Survey.....	Buff magnesian limestone.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 241 feet.
6211	Jan., 1886.....	Geol. Survey.....	Buff magnesian limestone.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 243 feet.
6212	Jan., 1886.....	Geol. Survey.....	Reddish-buff magnesian limestone.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 245 feet.
6213	Jan., 1886.....	Geol. Survey.....	Reddish-buff magnesian limestone.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 248 feet.
6214	Jan., 1886.....	Geol. Survey.....	Reddish-buff magnesian limestone.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 250 feet.
6215	Jan., 1886.....	Geol. Survey.....	Reddish-buff magnesian limestone.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 254 feet.
6216	Jan., 1886.....	Geol. Survey.....	Reddish-buff magnesian limestone.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 258 feet.
6217	Jan., 1886.....	Geol. Survey.....	Reddish-buff magnesian limestone.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 260 feet.
6218	Jan., 1886.....	Geol. Survey.....	Reddish-buff magnesian limestone.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 265 feet.
6219	Jan., 1886.....	Geol. Survey.....	Reddish-buff magnesian limestone.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 270 feet.
6220	Jan., 1886.....	Geol. Survey.....	Light-gray, crystalline magnesian limestone.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 275 feet.
6221	Jan., 1886.....	Geol. Survey.....	Buff magnesian limestone.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 285 feet.
6222	Jan., 1886.....	Geol. Survey.....	Vesicular, buff magnesian limestone.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 290 feet.
6223	Jan., 1886.....	Geol. Survey.....	Drillings, mixed, mainly quartzose sand.....	Indef.	Albert Lea, Minn.....		From Mayor A. C. Wedge, 300 feet.
6224	Jan., 1886.....	Geol. Survey.....	Fibrous gypsum.....	Indef.	Camillus, N. Y.....		From C. M. Phelps.
6225	Jan., 1886.....	Geol. Survey.....		Indef.	4 ms. S.E. f. New Ulm.....		
6226	Oct., 1885.....	Geol. Survey.....		Indef.			
6227	Feb., 1886.....	Presented.....		Indef.			



6228	Feb., 1886.....	Presented.....	Gypsum.....	1	Camillus, N. Y.	From N. H. Winchell.
6229	Feb., 1886.....	Presented.....	Gypsum.....	1	Sandusky, Ohio.....	From N. H. Winchell.
6230	Feb., 1886.....	Presented.....	Gypsum.....	2	Ottawa Co., Ohio.....	From N. H. Winchell.
6231	Feb., 1886.....	Presented.....	Fibrous gypsum.....	2	Grand Rapids, Mich.....	From N. H. Winchell.
6232	Feb., 1886.....	Presented.....	Wollastonite.....	1	Rock Harbor, I. Royale.....	From N. H. Winchell.
6233	Feb., 1886.....	Presented.....	Tufa.....	1	Marcellus Falls, N. Y.....	From N. H. Winchell.
6234	Feb., 1886.....	Presented.....	Calcite.....	7	Rock Harbor, I. Royale.....	From N. H. Winchell.
6235	Feb., 1886.....	Presented.....	Chlorastrolites in rock.....	1	Joliet, Ill.....	From N. H. Winchell.
6236	Feb., 1886.....	Presented.....	Niagara limestone.....	1	Ann Arbor, Mich.....	From N. H. Winchell.
6237	Feb., 1886.....	Presented.....	Feldspathic quartzite.....	1	Ann Arbor, Mich.....	From N. H. Winchell.
6238	Feb., 1886.....	Presented.....	Aphanite.....	1	Ann Arbor, Mich.....	From N. H. Winchell.
6239	Feb., 1886.....	Presented.....	Gneiss.....	1	Ann Arbor, Mich.....	From N. H. Winchell.
6240	Feb., 1886.....	Presented.....	Gneiss.....	1	Ann Arbor, Mich.....	From N. H. Winchell.
6241	Feb., 1886.....	Presented.....	Feldspathic quartzite.....	1	Ann Arbor, Mich.....	From N. H. Winchell.
6242	Feb., 1886.....	Presented.....	Mottled marble.....	1	Ohio.....	From N. H. Winchell.
6243	Feb., 1886.....	Presented.....	Bulr stone.....	1	Pt aux Peaux.....	From N. H. Winchell.
6244	Feb., 1886.....	Presented.....	Celestine.....	Indef.	Gibson, Sibley Co.....	From Andrew Erickson.
6245	Feb., 1886.....	Presented.....	Drillings, sand, 20 feet.....	Indef.	Gibson, Sibley Co.....	From Andrew Erickson.
6246	Feb., 1886.....	Presented.....	Drillings, remains of wood, fr. No. 6245.....	Indef.	Gibson, Sibley Co.....	From Andrew Erickson.
6247	Feb., 1886.....	Presented.....	Drillings, red granite, 30 ft.....	Indef.	Gibson, Sibley Co.....	From Andrew Erickson.
6248	Feb., 1886.....	Presented.....	(a) Garnet with glacial markings.....	1	Potsdam.....	From N. H. Winchell.
6249	March, 1886.....	Presented.....	(b) Garnet with glacial markings.....	1	Potsdam.....	From N. H. Winchell.
6250	March, 1886.....	Presented.....	Quartz crystals.....	1	Newburyport, Mass.....	From G. R. Lumsden, Orig. No. 1.
6251	March, 1886.....	Presented.....	Sillimanite and zircon w. crys. of monomorphous.....	1	N. Stonington, Conn.....	From G. R. Lumsden, Orig. No. 2.
6252	March, 1886.....	Presented.....	Prehnite.....	1	Norwich Falls, Conn.....	From G. R. Lumsden, Orig. No. 3.
6253	March, 1886.....	Presented.....	Amethyst.....	1	Hartford, Conn.....	From G. R. Lumsden, Orig. No. 4.
6254	March, 1886.....	Presented.....	Brucite and chondrodite.....	1	New Haven, Conn.....	From G. R. Lumsden, Orig. No. 5.
6255	March, 1886.....	Presented.....	Magnetite iron ore.....	1	Nova Scotia.....	From G. R. Lumsden, Orig. No. 6.
6256	March, 1886.....	Presented.....	Magnetite iron ore.....	1	Hoboken, N. J.....	From G. R. Lumsden, Orig. No. 7.
6257	March, 1886.....	Presented.....	Magnetite iron ore.....	1	New Jersey.....	From G. R. Lumsden, Orig. No. 8.
6258	March, 1886.....	Presented.....	Magnetite iron ore.....	1	Africa.....	From G. R. Lumsden, Orig. No. 9.
6259	March, 1886.....	Presented.....	Magnetite iron ore.....	1	Chester Co., Pa.....	From G. R. Lumsden, Orig. No. 10.
6260	March, 1886.....	Presented.....	Magnetite iron ore.....	1	Cupar, Scotland.....	From G. R. Lumsden, Orig. No. 11.
6261	March, 1886.....	Presented.....	Magnetite iron ore.....	1	Greiner, Tyrol.....	From G. R. Lumsden, Orig. No. 12.
6262	March, 1886.....	Presented.....	Magnetite iron ore.....	1	Lowenberg, Ger.....	From G. R. Lumsden, Orig. No. 13.
6263	March, 1886.....	Presented.....	Magnetite iron ore.....	1	Alstadt, Ger.....	From G. R. Lumsden, Orig. No. 14.
6264	March, 1886.....	Presented.....	Magnetite iron ore.....	1	Zoeptau, Ger.....	From G. R. Lumsden, Orig. No. 15.
6265	March, 1886.....	Presented.....	Magnetite iron ore.....	1	New Haven, Conn.....	From G. R. Lumsden, Orig. No. 16.
6266	March, 1886.....	Presented.....	Magnetite iron ore.....	1	Schima, Bohemia.....	From G. R. Lumsden, Orig. No. 17.
6267	March, 1886.....	Presented.....	Magnetite iron ore.....	3	Colorado.....	From G. R. Lumsden, Orig. No. 18.
6268	March, 1886.....	Presented.....	Magnetite iron ore.....	1	Tyrol.....	From G. R. Lumsden, Orig. No. 19.
6269	March, 1886.....	Presented.....	Magnetite iron ore.....	1	Schima, Bohemia.....	From G. R. Lumsden, Orig. No. 20.
6270	March, 1886.....	Presented.....	Magnetite iron ore.....	7	Volpersdorf.....	From G. R. Lumsden, Orig. No. 21.
6271	March, 1886.....	Presented.....	Magnetite iron ore.....	1	Preston Conn.....	From G. R. Lumsden, Orig. No. 22.
6272	March, 1886.....	Presented.....	Magnetite iron ore.....	1	Sweet-water Co, Wyo.....	From G. R. Lumsden, Orig. No. 23.
6273	March, 1886.....	Presented.....	Magnetite iron ore.....	1	Schneeckenstein, Ger.....	From G. R. Lumsden, Orig. No. 24.
6274	March, 1886.....	Presented.....	Magnetite iron ore.....	1	Texas.....	From G. R. Lumsden, Orig. No. 25.
6275	March, 1886.....	Presented.....	Magnetite iron ore.....	1	Brewig, Norway.....	From G. R. Lumsden, Orig. No. 26.
6276	March, 1886.....	Presented.....	Magnetite iron ore.....	1	Brewig, Norway.....	From G. R. Lumsden, Orig. No. 27.
6277	March, 1886.....	Presented.....	Magnetite iron ore.....	1	Brewig, Norway.....	From G. R. Lumsden, Orig. No. 28.
6278	March, 1886.....	Presented.....	Magnetite iron ore.....	1	Brewig, Norway.....	From G. R. Lumsden, Orig. No. 29.
6279	March, 1886.....	Presented.....	Magnetite iron ore.....	1	Brewig, Norway.....	From G. R. Lumsden, Orig. No. 30.
6280	March, 1886.....	Presented.....	Magnetite iron ore.....	1	Brewig, Norway.....	From G. R. Lumsden, Orig. No. 31.
6281	March, 1886.....	Presented.....	Magnetite iron ore.....	1	Brewig, Norway.....	From G. R. Lumsden, Orig. No. 32.
6282	March, 1886.....	Presented.....	Magnetite iron ore.....	1	Brewig, Norway.....	From G. R. Lumsden, Orig. No. 33.
6283	March, 1886.....	Presented.....	Magnetite iron ore.....	1	Brewig, Norway.....	From G. R. Lumsden, Orig. No. 34.
6284	March, 1886.....	Presented.....	Magnetite iron ore.....	1	Brewig, Norway.....	From G. R. Lumsden, Orig. No. 35.
6285	March, 1886.....	Presented.....	Magnetite iron ore.....	1	Brewig, Norway.....	From G. R. Lumsden, Orig. No. 36.
6286	March, 1886.....	Presented.....	Magnetite iron ore.....	1	Brewig, Norway.....	From G. R. Lumsden, Orig. No. 37.

## SPECIMENS REGISTERED IN THE GENERAL MUSEUM IN 1887-88.—(Continued.)

Serial No.	OBTAINED.		NAME.	Number of Specimen	LOCALITY.	FORMA- TION.	COLLECTOR AND REMARKS.
	When.	Whence.					
6276	March, 1886.	Presented.	Garnet sand	Indef	Roxbury, Mass.	.....	From G. R. Lumsden, Orig. No. 38.
6277	March, 1886.	Presented.	Iolite	1	Orizavui, Finland	.....	From G. R. Lumsden, Orig. No. 39.
6278	March, 1886.	Presented.	Erlane (Breithauptite)	1	Schwarzenberg, Ger.	.....	From G. R. Lumsden, Orig. No. 41.
6279	March, 1886.	Presented.	Galena	Indef	Dubuque, Iowa	.....	From G. R. Lumsden, Orig. No. 42.
6280	March, 1886.	Presented.	Asbestos	1	Toronto, Canada	.....	From G. R. Lumsden, Orig. No. 43.
6281	March, 1886.	Presented.	Garnets	5	Haddam, Conn.	.....	From G. R. Lumsden, Orig. No. 44.
6282	March, 1886.	Presented.	Green Feldspar	4	Rockport, Mass.	.....	From G. R. Lumsden, Orig. No. 50.
6283	March, 1886.	Presented.	Lead Selenate	1	Dürenberg, Germ.	.....	From G. R. Lumsden, Orig. No. 51.
6284	March, 1886.	Presented.	Mica	1	New Haven, Conn.	.....	From G. R. Lumsden, Orig. No. 52.
6285	March, 1886.	Presented.	Asbestos	1	Norwalk, Conn.	.....	From G. R. Lumsden, Orig. No. 53.
6286	March, 1886.	Presented.	Cyanite	1	Greiner, Tyrol	.....	From G. R. Lumsden, Orig. No. 54.
6287	March, 1886.	Presented.	Asbestos	1	Vermont	.....	From G. R. Lumsden, Orig. No. 55.
6288	March, 1886.	Presented.	Sodalite	1	Elfel, Germ.	.....	From G. R. Lumsden, Orig. No. 56.
6289	March, 1886.	Presented.	Hayanite	1	Laacher, Germ.	.....	From G. R. Lumsden, Orig. No. 57.
6290	March, 1886.	Presented.	Epidote	2	Franconia, N. H.	.....	From G. R. Lumsden, Orig. No. 59.
6291	March, 1886.	Presented.	Spodumene	1	Sterling, Mass.	.....	From G. R. Lumsden, Orig. No. 60.
6292	March, 1886.	Presented.	Cobalt	3	Gefrees, Germ.	.....	From G. R. Lumsden, Orig. No. 62.
6293	March, 1886.	Presented.	Opasolite	1	Toepitz, Germ.	.....	From G. R. Lumsden, Orig. No. 63.
6294	March, 1886.	Presented.	Porcelainite	1	York Co., Pa.	.....	From G. R. Lumsden, Orig. No. 65.
6295	March, 1886.	Presented.	Asbestos	1	Blin, Prussia	.....	From G. R. Lumsden, Orig. No. 68.
6296	March, 1886.	Presented.	Tripyrite	1	Rhode Island	.....	From G. R. Lumsden, Orig. No. 69.
6297	March, 1886.	Presented.	Magnetite	1	Tionderoga, N. Y.	.....	From G. R. Lumsden, Orig. No. 74.
6298	March, 1886.	Presented.	Graphite	1	Halbermond	.....	From G. R. Lumsden, Orig. No. 76.
6299	March, 1886.	Presented.	Sibonite	1	Oberstein, Germ.	.....	From G. R. Lumsden, Orig. No. 77.
6300	March, 1886.	Presented.	Onyx	1	Madura, India	.....	From G. R. Lumsden, Orig. No. 78.
6301	March, 1886.	Presented.	Chloropal	1	Wiesloch	.....	From G. R. Lumsden, Orig. No. 79.
6302	March, 1886.	Presented.	Calamine	1	Rattel, Corinthia	.....	From G. R. Lumsden, Orig. No. 80.
6303	March, 1886.	Presented.	Black mica schist	1	Ames, N. Y.	.....	From G. R. Lumsden, Orig. No. 82.
6304	March, 1886.	Presented.	Wolftramite	1	Zirnmwald, Bohemia	.....	From G. R. Lumsden, Orig. No. 85.
6305	March, 1886.	Presented.	Covellite	1	Pennsylvania	.....	From G. R. Lumsden, Orig. No. 87.
6306	March, 1886.	Presented.	Iron pyrites	1	Marienberg, Germ.	.....	From G. R. Lumsden, Orig. No. 88.
6307	March, 1886.	Presented.	Hexahedral iron pyrites	1	Alsan, Germ.	.....	From G. R. Lumsden, Orig. No. 93.
6308	March, 1886.	Presented.	Iron and shale	1	York Common, N. Y.	.....	From G. R. Lumsden, Orig. No. 94.
6309	March, 1886.	Presented.	Petrified cottonwood	1	Colorado	.....	From G. R. Lumsden, Orig. No. 95.
6310	March, 1886.	Presented.	Hematite	1	Irgang, Bohemia	.....	From G. R. Lumsden, Orig. No. 97.
6311	March, 1886.	Presented.	Zircon	1	Green River, Hender- son Co., N. C.	.....	From G. R. Lumsden, Orig. No. 99.
6312	March, 1886.	Presented.		Indef		.....	From G. R. Lumsden, Orig. No. 100.

6313	March, 1886.	Presented.	Ferruginous quartz .....	1	Schellerhan, Germ.....	From G. R. Lumsden, Orig. No. 102.
6314	March, 1886.	Presented.	Tremolite.....	1	.....	From G. R. Lumsden, Orig. No. 106.
6315	March, 1886.	Presented.	Pisiform ironstone..	Indef.	.....	From G. R. Lumsden, Orig. No. 107.
6316	March, 1886.	Presented.	Magnetite.....	1	Philipsstad, Sweden.....	From G. R. Lumsden, Orig. No. 111.
6317	March, 1886.	Presented.	Siderite.....	1	Germany.....	From G. R. Lumsden, Orig. No. 114.
6318	March, 1886.	Presented.	Native sulphur.....	1	Stetly.....	From G. R. Lumsden, Orig. No. 115.
6319	March, 1886.	Presented.	Red cobalt ochre.....	1	.....	From G. R. Lumsden, Orig. No. 119.
6320	March, 1886.	Presented.	Copper nickel.....	1	Schneeberg, Germ.....	From G. R. Lumsden, Orig. No. 121.
6321	March, 1886.	Presented.	Variegated copper.....	1	Freiberg, Germ.....	From G. R. Lumsden, Orig. No. 125.
6322	March, 1886.	Presented.	Copper pyrites.....	1	Stegan, Germ.....	From G. R. Lumsden, Orig. No. 126.
6323	March, 1886.	Presented.	Gray copper.....	1	Alsan, Germ.....	From G. R. Lumsden, Orig. No. 127.
6324	March, 1886.	Presented.	Red oxide of copper.....	1	Thuringia.....	From G. R. Lumsden, Orig. No. 128.
6325	March, 1886.	Presented.	Malachite.....	1	Dillenber, Nassau.....	From G. R. Lumsden, Orig. No. 131.
6326	March, 1886.	Presented.	Blue copper.....	1	Dillenberg, Nassau.....	From G. R. Lumsden, Orig. No. 132.
6327	March, 1886.	Presented.	Iron slag.....	1	Rheinbreitenbach.....	From G. R. Lumsden, Orig. No. 133.
6328	March, 1886.	Presented.	Hepatic mercurial ore.....	2	Norwich, Conn.....	From G. R. Lumsden, Orig. No. 137.
6329	March, 1886.	Presented.	Argentite.....	1	Freiberg, Germ.....	From G. R. Lumsden, Orig. No. 138.
6330	March, 1886.	Presented.	Willi-msite.....	1	Rock Springs, Ind.....	From G. R. Lumsden, Orig. No. 140.
6331	March, 1886.	Presented.	Nagyagite.....	1	Nagyag, Transsylvania.....	From G. R. Lumsden, Orig. No. 143.
6332	March, 1886.	Presented.	Native platina.....	Indef.	Tagelsk, Ural.....	From G. R. Lumsden, Orig. No. 144.
6333	March, 1886.	Presented.	Silver pyrites.....	1	Mont. Co., N. Y.....	From G. R. Lumsden, Orig. No. 145.
6334	March, 1886.	Presented.	Blue iron earth.....	Indef.	Ebstorf.....	From G. R. Lumsden, Orig. No. 152.
6335	March, 1886.	Presented.	Asbestos.....	Indef.	Canada.....	From G. R. Lumsden, Orig. No. 153.
6337	March, 1886.	Presented.	Beryl.....	1	Canterbury, N. H.....	From G. R. Lumsden, Orig. No. 157.
6338	March, 1886.	Presented.	Mica.....	1	New Jersey.....	From G. R. Lumsden, Orig. No. 158.
6339	March, 1886.	Presented.	Brown chalcodony.....	1	Madura, India.....	From G. R. Lumsden, Orig. No. 159.
6340	March, 1886.	Presented.	Brown coal.....	1	Brühl, Germ.....	From G. R. Lumsden, Orig. No. 160.
6341	March, 1886.	Presented.	Peat.....	1	Kloster Laach.....	From G. R. Lumsden, Orig. No. 162.
6342	March, 1886.	Presented.	Native boracic acid.....	Indef.	Vulkano.....	From G. R. Lumsden, Orig. No. 163.
6343	March, 1886.	Presented.	Hayesine.....	Indef.	Iquique, Peru.....	From G. R. Lumsden, Orig. No. 165.
6344	March, 1886.	Presented.	Brown coal.....	1	Frieddorf, Bonn.....	From G. R. Lumsden, Orig. No. 172.
6345	March, 1886.	Presented.	Nitrate.....	Indef.	Chili.....	From G. R. Lumsden, Orig. No. 176.
6346	March, 1886.	Presented.	Celestine.....	1	Dornburg, Iena.....	From G. R. Lumsden, Orig. No. 179.
6347	March, 1886.	Presented.	Garnet.....	1	New Hampshire.....	From G. R. Lumsden, Orig. No. 180.
6348	March, 1886.	Presented.	Crystals of hematite.....	1	New York.....	From G. R. Lumsden, Orig. No. 183.
6349	March, 1886.	Presented.	Emery.....	1	Naxos (Grecular Isl.).....	From G. R. Lumsden, Orig. No. 186.
6350	March, 1886.	Presented.	Asbestos.....	Indef.	Greiner, Tyrol.....	From G. R. Lumsden, Orig. No. 188.
6351	March, 1886.	Presented.	Calcite.....	1	Howe's cave, N. Y.....	From G. R. Lumsden, Orig. No. 192.
6352	March, 1886.	Presented.	Native lodestone.....	1	Mt. Calamite, Elba.....	From G. R. Lumsden, Orig. No. 195.
6353	March, 1886.	Presented.	Rutile.....	5	Capelan Mis.....	From G. R. Lumsden, Orig. No. 196.
6354	March, 1886.	Presented.	Corundum (ruby).....	Indef.	Sweden.....	From G. R. Lumsden, Orig. No. 197.
6355	March, 1886.	Presented.	Spinel (blue).....	1	Marik, Germ.....	From G. R. Lumsden, Orig. No. 199.
6356	March, 1886.	Presented.	Spinel (ruby).....	1	Swedish, Ceylon Isl.....	From G. R. Lumsden, Orig. No. 200.
6357	March, 1886.	Presented.	Tremolite.....	Indef.	Candy, Ceylon Isl.....	From G. R. Lumsden, Orig. No. 202.
6358	March, 1886.	Presented.	Beryl.....	1	New York.....	From G. R. Lumsden, Orig. No. 204.
6359	March, 1886.	Presented.	Smoky quartz.....	1	Haddam, Conn.....	From G. R. Lumsden, Orig. No. 208.
6360	March, 1886.	Presented.	.....	1	N. Benton, N. H.....	.....



## SPECIMENS REGISTERED IN THE GENERAL MUSEUM IN 1887-88.—(Continued.)

Serial No.	OBTAINED.		NAME.	Number of Specimen.	LOCALITY.	Formation.	COLLECTOR AND REMARKS.
	When.	Whence.					
6361	March, 1886...	Presented	Tourmaline (red).....	1	Moravia.....	.....	From G. R. Lumsden, Orig. No. 209.
6362	March, 1886...	Presented	Smoky quartz.....	3	St. Gotthard.....	.....	From G. R. Lumsden, Orig. No. 212.
6363	March, 1886...	Presented	Amethyst.....	1	Oberstein.....	.....	From G. R. Lumsden, Orig. No. 213.
6364	March, 1886...	Presented	Cat's-eye.....	1	Hoff in Bavaria.....	.....	From G. R. Lumsden, Orig. No. 214.
6365	March, 1886...	Presented	Pyrolusite.....	1	New York.....	.....	From G. R. Lumsden, Orig. No. 216.
6366	March, 1886...	Presented	Carnelian.....	1	Oberstein.....	.....	From G. R. Lumsden, Orig. No. 219.
6367	March, 1886...	Presented	Andalusite.....	2	Lancaster, N. H.....	.....	From G. R. Lumsden, Orig. No. 223.
6368	March, 1886...	Presented	Jasper (globular).....	1	Kanden, Baden.....	.....	From G. R. Lumsden, Orig. No. 224.
6369	March, 1886...	Presented	Muscovite.....	1	New Haven, Conn.....	.....	From G. R. Lumsden, Orig. No. 226.
6370	March, 1886...	Presented	Box iron ore.....	1	Ft. Plain, N. Y.....	.....	From G. R. Lumsden, Orig. No. 228.
6371	March, 1886...	Presented	Foliated brown coal.....	1	Ratt, Germany.....	.....	From G. R. Lumsden, Orig. No. 229.
6372	March, 1886...	Presented	Fire opal.....	1	Zamapan.....	.....	From G. R. Lumsden, Orig. No. 231.
6373	March, 1886...	Presented	Chrysolite.....	Indef.	Dreis in d. Eifel.....	.....	From G. R. Lumsden, Orig. No. 232.
6374	March, 1886...	Presented	Serpentine.....	1	New Haven, Conn.....	.....	From G. R. Lumsden, Orig. No. 233.
6375	March, 1886...	Presented	Diopside.....	3	Rothenkopf, Tyrol.....	.....	From G. R. Lumsden, Orig. No. 235.
6376	March, 1886...	Presented	Bastite.....	1	Baste in Harz.....	.....	From G. R. Lumsden, Orig. No. 236.
6377	March, 1886...	Presented	Andularia feldspar.....	1	Mt. Stella, St. Goth d.....	.....	From G. R. Lumsden, Orig. No. 237.
6378	March, 1886...	Presented	Actinolite.....	1	Connecticut.....	.....	From G. R. Lumsden, Orig. No. 238.
6379	March, 1886...	Presented	Agate with stibite in cavity.....	1	Partridge Isl., N. S.....	.....	From G. R. Lumsden, Orig. No. 240.
6380	March, 1886...	Presented	Lazulite.....	1	Krieglach, Styria.....	.....	From G. R. Lumsden, Orig. No. 241.
6381	March, 1886...	Presented	Turquois.....	Indef.	Khorassan, Persia.....	.....	From G. R. Lumsden, Orig. No. 242.
6382	March, 1886...	Presented	Fluorite.....	1	Freiburg, Germany.....	.....	From G. R. Lumsden, Orig. No. 243.
6383	March, 1886...	Presented	Vesuvianite.....	1	Monzoni, Tyrol.....	.....	From G. R. Lumsden, Orig. No. 246.
6384	March, 1886...	Presented	Pyrope.....	Indef.	Merionitz, Bohemia.....	.....	From G. R. Lumsden, Orig. No. 249.
6385	March, 1886...	Presented	Amber.....	2	Prussia.....	.....	From G. R. Lumsden, Orig. No. 254.
6386	March, 1886...	Presented	Pyrites and lead.....	1	Mont. County, N. Y.....	.....	From G. R. Lumsden, Orig. No. 257.
6387	March, 1886...	Presented	Galena.....	1	Pennsylvania.....	.....	From G. R. Lumsden, Orig. No. 263.
6388	March, 1886...	Presented	Gold bearing quartz.....	1	Mariposa.....	.....	From G. R. Lumsden, Orig. No. 269.
6389	March, 1886...	Presented	Hornstone.....	1	Vermont.....	.....	From G. R. Lumsden, Orig. No. 272.
6390	March, 1886...	Presented	Beryl.....	1	New Haven, Conn.....	.....	From G. R. Lumsden, Orig. No. 277.
6391	March, 1886...	Presented	Limestone crystals.....	1	Kentucky.....	.....	From G. R. Lumsden, Orig. No. 279.
6392	March, 1886...	Presented	Muscovite.....	1	Connecticut.....	.....	From G. R. Lumsden, Orig. No. 281.
6393	March, 1886...	Presented	Iron pyrites.....	1	Pennsylvania.....	.....	From G. R. Lumsden, Orig. No. 284.
6394	March, 1886...	Presented	Galena.....	1	Rosie, N. Y.....	.....	From G. R. Lumsden, Orig. No. 295.
6395	March, 1886...	Presented	Stibite.....	1	Sandy Cove, N. S.....	.....	From G. R. Lumsden, Orig. No. 297.
6396	March, 1886...	Presented	Sand (for making glass).....	Indef.	Mystic, Conn.....	.....	From G. R. Lumsden, Orig. No. 299.
6397	March, 1886...	Presented	Asbestos.....	Indef.	Canada.....	.....	From G. R. Lumsden, Orig. No. 300.



6398	March, 1886.	Presented	Leelite	1	Chester Co, Pa.	From G. R. Lumsden, Orig. No. 301.
6399	March, 1886.	Presented	Albite	1	St. Albans, Canada.	From G. R. Lumsden, Orig. No. 302.
6400	March, 1886.	Presented	Asbestos	1	New London, N. H.	From G. R. Lumsden, Orig. No. 304.
6401	March, 1886.	Presented	Crystals of beryl	1	Sturbridge, Mass.	From G. R. Lumsden, Orig. No. 305.
6402	March, 1886.	Presented	Garnet sand	Indef.	Haddam, Conn.	From G. R. Lumsden, Orig. No. 309.
6403	March, 1886.	Presented	Crystal of mica	3	Lake Michigan.	From G. R. Lumsden, Orig. No. 310.
6404	March, 1886.	Presented	Porcelain and china (from feldspar)	Indef.	Haddam, Conn.	From G. R. Lumsden, Orig. No. 311.
6405	March, 1886.	Presented	Clay, pebbles and pyrites	Indef.	Delaware	From G. R. Lumsden, Orig. No. 312.
6406	March, 1886.	Presented	Kaolin	Indef.	Saxony, Germany	From G. R. Lumsden, Orig. No. 313.
6407	March, 1886.	Presented	Moon-stone.	Indef.	Haddam, Conn.	From G. R. Lumsden, Orig. No. 318.
6408	March, 1886.	Presented	Garnets.	1	Willmantic, Conn.	From G. R. Lumsden, Orig. No. 338.
6409	March, 1886.	Presented	Garnets.	1	New Haven, Conn.	From G. R. Lumsden, Orig. No. 340.
6410	March, 1886.	Presented	Piece of staurolite.	1	Howe's Cove, N. Y.	From G. R. Lumsden, Orig. No. 350.
6411	March, 1886.	Presented	Foliated sulphate of lime.	1	Connecticut.	From G. R. Lumsden, Orig. No. 370.
6412	March, 1886.	Presented	Asbestos	1	Norwalk, Conn.	From G. R. Lumsden, Orig. No. 380.
6413	March, 1886.	Presented	Rose quartz	1	New Britain, Conn.	From G. R. Lumsden, Orig. No. 400.
6414	March, 1886.	Presented	Chrysoberyl	7	Haddam, Conn.	From G. R. Lumsden, Orig. No. 414.
6415	March, 1886.	Presented	Feldspar	1	Fort Plain, N. Y.	From G. R. Lumsden, Orig. No. 415.
6416	March, 1886.	Presented	Volcanic glass	Indef.	Crater of Orwyhee.	From G. R. Lumsden, Orig. No. 490.
6417	March, 1886.	Presented	Beryl (emerald)	2	East Siberia.	From G. R. Lumsden, Orig. No. 500.
6418	March, 1886.	Presented	Glassy feldspar	1	Drachenfels, Germ.	From G. R. Lumsden, Orig. No. 3.
6419	March, 1886.	Presented	Iron pyrites	2		From G. R. Lumsden, Orig. No. 19.
6420	March, 1886.	Presented	Chalcopyrite, galena and calcite.	3		From G. R. Lumsden, Orig. No. 22.
6421	March, 1886.	Presented	Siderite.	1		From G. R. Lumsden, Orig. No. 71.
6422	March, 1886.	Presented	Wood opal	1		From G. R. Lumsden, Orig. No. 91.
6423	March, 1886.	Presented	Malachite (earthy)	1		From G. R. Lumsden, Orig. No. 109.
6424	March, 1886.	Presented	Tremolite.	1		From G. R. Lumsden, Orig. No. 274.
6425	March, 1886.	Presented	Black limestone.	1		From G. R. Lumsden, Orig. No. 282.
6426	March, 1886.	Presented	Agate (polished).	1		From G. R. Lumsden, Orig. No. 307.
6427	March, 1886.	Presented	Beryl	1		From G. R. Lumsden, Orig. No. 390.
6428	March, 1886.	Presented	Wood Jasper.	5		From G. R. Lumsden, Orig. No. 460.
6429	March, 1886.	Presented	Petrified wood	1		From G. R. Lumsden, Orig. No. 470.
6430	March, 1886.	Presented	Concretions	1		From G. R. Lumsden.
6431	March, 1886.	Presented	Ostrea bellaplicata.	10	Ill ?	From G. R. Lumsden.
6432	Jan, 1886	Presented	Ostrea quadruplicata.	4	Sherman, Texas	From F. A. Sampson, Sedalia, Mo.
6433	Jan, 1886	Presented	Ostrea quadruplicata (or allied species).	10	Denison, Texas.	From F. A. Sampson, Sedalia, Mo.
6434	Jan, 1886	Presented	Ostrea carinata	5	Denison, Texas.	From F. A. Sampson, Sedalia, Mo.
6435	Jan, 1886	Presented	Gryphaea pitcheri	5	Denison, Texas.	From F. A. Sampson, Sedalia, Mo.
6436	Jan, 1886	Presented	Gryphaea pitcheri variety.	20	Denison, Texas.	From F. A. Sampson, Sedalia, Mo.
6437	Jan, 1886	Presented	Gryphaea pitcheri variety.	5	Denison, Texas.	From F. A. Sampson, Sedalia, Mo.
6438	Jan, 1886	Presented	Exogyra arietum	5	Denison, Texas.	From F. A. Sampson, Sedalia, Mo.
6439	Jan, 1886	Presented	Exogyra matheroniana.	15	Ft. Worth, Texas	From F. A. Sampson, Sedalia, Mo.
6440	Jan, 1886	Presented	Codium	3	Denison, Texas.	From F. A. Sampson, Sedalia, Mo.
6441	Jan, 1886	Presented	Corbula graysonensis	1	Sherman, Texas.	From F. A. Sampson, Sedalia, Mo.
6442	Jan, 1886	Presented	Lima wacoensis	2	Denison, Texas.	From F. A. Sampson, Sedalia, Mo.
6443	Jan, 1886	Presented	Neitha texana.	1	Denison, Texas.	From F. A. Sampson, Sedalia, Mo.
6444	Jan, 1886	Presented	Terebraulia wacoensis.	3	Denison, Texas.	From F. A. Sampson, Sedalia, Mo.
6445	Jan, 1886	Presented		15	Ft. Worth, Texas.	From F. A. Sampson, Sedalia, Mo.

## SPECIMENS REGISTERED IN THE GENERAL MUSEUM IN 1887-88.—(Continued.)

Serial No.	OBTAINED.		NAME.	Number of Specimen.	LOCALITY.	FORMA- TION.	COLLECTOR AND REMARKS.
	When.	Whence.					
6446	Jan., 1886.	Presented	<i>Serpula communis</i> .	4	Denison, Tex.	Cretaceous	From F. A. Sampson, Sedalia, Mo.
6447	Jan., 1886	Presented	<i>Serpula communis</i> .	1	Denison, Tex.	Cretaceous	From F. A. Sampson, Sedalia, Mo.
6448	Jan., 1886	Presented	<i>Horaster elegans</i> .	2	Denison, Tex.	Cretaceous	From F. A. Sampson, Sedalia, Mo.
6451	Jan., 1886	Presented	<i>Chonetophyllum sedalenis</i> , White.	4	Sedalia, Mo.	.....	From F. A. Sampson, Sedalia, Mo.
6452	Jan., 1886	Presented	<i>Michelina expansa</i> , White.	4	Sedalia, Mo.	.....	From F. A. Sampson, Sedalia, Mo.
6453	Jan., 1886	Presented	<i>Michelina placenta</i> , White.	2	Sedalia, Mo.	.....	From F. A. Sampson, Sedalia, Mo.
6454	Jan., 1886	Presented	<i>Zaphrentis calceola</i> , W & W	10	Sedalia, Mo.	.....	From F. A. Sampson, Sedalia, Mo.
6455	Jan., 1886	Presented	<i>Flabellum wellesi</i> , Conr	10	Jackson, Miss.	.....	From F. A. Sampson, Sedalia, Mo.
6456	Jan., 1886	Presented	<i>Turbinola machurii</i>	2	Jackson, Miss.	Tertiary	From F. A. Sampson, Sedalia, Mo.
6457	Jan., 1886	Presented	<i>Osteodons</i>	5	Jackson, Miss.	Tertiary	From F. A. Sampson, Sedalia, Mo.
6458	Jan., 1886	Presented	<i>Cellopora</i>	5	Jackson, Miss.	Tertiary	From F. A. Sampson, Sedalia, Mo.
6459	Jan., 1886	Presented	<i>Cellopora informata</i> , Lonsd	3	Jackson, Miss.	Tertiary	From F. A. Sampson, Sedalia, Mo.
8460	Jan., 1886	Presented	<i>Heteropora tortilis</i> .	5	Jackson, Miss.	Tertiary	From F. A. Sampson, Sedalia, Mo.
6461	March, 1886.	Exchange	<i>Diabase</i> .	1	Near Leesburg, Va.	.....	Smithsonian Inst., Washington, D. C.
6462	March, 1886.	Exchange	<i>Diabase</i> .	1	Addison, Maine	.....	Smith. Inst., Wash., Orig. No. 37,019.
6463	March, 1886.	Exchange	<i>Diabase</i> .	1	York, Pa.	.....	Smith. Ins., Wash., Orig. No. 37,020.
6464	March, 1886.	Exchange	<i>Olivine diabase</i>	1	Sonerville, Mass.	.....	Smith. Inst., Wash., Orig. No. 37,693.
6465	March, 1886.	Exchange	<i>Monite</i> .	1	Lewiston, Maine	.....	Smith. Inst., Wash., Orig. No. 37,618.
6466	March, 1886.	Exchange	<i>Metaphyr</i> .	1	Nahant, Mass.	.....	Smith. Inst., Wash., Orig. No. 35,931.
6467	March, 1886.	Exchange	<i>Amphibolite</i>	1	Brighton, Mass.	.....	Smith. Inst., Wash., Orig. No. 25,552.
6469	March, 1886.	Exchange	<i>Hypersthene andesite</i> .	1	Chester, Mass.	.....	Smith. Inst., Wash., Orig. No. 35,940.
6470	March, 1886.	Exchange	<i>Hornblende andesite</i> .	1	Mt. Shasta, Calif	.....	Smith. Inst., Wash., Orig. No. 37,655.
6471	March, 1886.	Exchange	<i>Hornblende andesite</i> .	1	Mt. Shasta, Calif	.....	Smith. Inst., Wash., Orig. No. 36,978.
6472	March, 1886.	Exchange	<i>Elaeolite syenite</i> .	1	Mexico, Mexico.	.....	Smith. Inst., Wash., Orig. No. 36,977.
6473	March, 1886.	Exchange	<i>Elaeolite syenite</i> .	1	N'r Deckertown, N. J.	.....	Smith. Inst., Wash., Orig. No. 37,711.
6474	March, 1886.	Exchange	<i>Rhyolite</i>	1	S. Litchfield, Maine.	.....	Smith. Inst., Wash., D. C.
6475	March, 1886.	Exchange	<i>Rhyolite</i>	1	Zacatecas, Mexico.	.....	Smith. Inst., Wash., Orig. No. 35,935.
6476	March, 1886.	Exchange	<i>Rhyolite tuff</i>	1	Zacatecas, Mexico.	.....	Smith. Inst., Wash., Orig. No. 37,994.
6477	March, 1886.	Exchange	<i>Rhyolite tuff</i>	1	Douglas Co, Colorado	.....	Smith. Inst., Wash., D. C.
6478	March, 1886.	Exchange	<i>Rhyolite tuff</i>	1	Zacatecas, Mexico.	.....	Smith. Inst., Wash., Orig. No. 37,779.
6480	March, 1886.	Exchange	<i>Basalt</i>	1	Coast of Ireland	.....	Smith. Inst., Wash., Orig. No. 37,693.
6481	March, 1886.	Exchange	<i>Basalt</i>	1	Coast of Ireland	.....	Smith. Inst., Wash., Orig. No. 37,610.
6482	March, 1886.	Exchange	<i>Leucite basalt</i> .	1	Zacatecas, Mexico.	.....	Smith. Inst., Wash., Orig. No. 37,786.
6483	March, 1886.	Exchange	<i>Obsidian</i>	1	Vesuvius, flow of 1872	.....	Smith. Inst., Wash., Orig. No. 36,144.
6484	March, 1886.	Exchange	<i>Satin spar</i> .	1	Mono Craters, Calif.	.....	Smith. Inst., Wash., Orig. No. 29,631.
					Pueblo, Mexico.	.....	Smith. Inst., Wash., Orig. No. 37,815.

6487	April, 1886.	Geol. Survey.	Cryptozoön Minnesotaense, Winch.	1	Mankato	Shakopee.	N. H. Winchell.
6488	April, 1886.	Geol. Survey.	St. Lawrence limestone.	7	St. Lawrence	St. Law.	N. H. Winchell.
6490	Sept., 1886.	Geol. Survey.	Orthis sandbergi, Winchell.	1	Red Wing.	St. Croix.	N. H. Winchell from 6070.
6491	May, 1886.	Geol. Survey.	Kaolin.	Indef.	Redwood Falls.	Archean	N. H. Winchell (from Col. J. B. Clough), 1, depth 1.
6492	May, 1886.	Geol. Survey.	Black loam soil.	Indef.	Tracy, Minn.		N. H. Winchell, No. ft. 19, depth 20.
6493	May, 1886.	Geol. Survey.	Yellowish pebbly clay.	Indef.	Tracy, Minn.		N. H. Winchell, No. ft. 100, depth 120.
6494	May, 1886.	Geol. Survey.	Blue till.	Indef.	Tracy, Minn.		N. H. Winchell, No. ft. 5, depth 125.
6495	May, 1886.	Geol. Survey.	Fine gravel, nearly black.	Indef.	Tracy, Minn.		N. H. Winchell, No. ft. 20, depth 145.
6496	May, 1886.	Geol. Survey.	Fine blue clay.	Indef.	Tracy, Minn.		N. H. Winchell, No. ft. 20, depth 165.
6497	May, 1886.	Geol. Survey.	Coarse gravel (similar to No. 4).	Indef.	Tracy, Minn.		N. H. Winchell, No. ft. 12, depth 177.
6498	May, 1886.	Geol. Survey.	Fine blue clay.	Indef.	Tracy, Minn.		N. H. Winchell, No. ft. 20, depth 197.
6499	May, 1886.	Geol. Survey.	Fine sandstone, homogeneous.	Indef.	Tracy, Minn.		N. H. Winchell, No. ft. 213, depth 410.
6500	May, 1886.	Geol. Survey.	Dark gray shale.	Indef.	Tracy, Minn.		N. H. Winchell, No. ft. 60, depth 470.
6501	May, 1886.	Geol. Survey.	Fine light blue or greenish sand.	Indef.	Tracy, Minn.		N. H. Winchell, No. ft. 43, depth 513.
6502	May, 1886.	Geol. Survey.	Blue clay.	Indef.	Tracy, Minn.		N. H. Winchell, No. ft. 32, depth 545.
6503	May, 1886.	Geol. Survey.	Cretaceous grit.	Indef.	Tracy, Minn.		N. H. Winchell, No. ft. 5, depth 550.
6504	May, 1886.	Geol. Survey.	Fine gray sandstone.	Indef.	Tracy, Minn.		N. H. Winchell, No. ft. 30, depth 580.
6505	May, 1886.	Geol. Survey.	Blue clay like that of 6502.	Indef.	Tracy, Minn.		N. H. Winchell, No. ft. 7, depth 587.
6506	May, 1886.	Geol. Survey.	Angular, rounded grains of sand.	Indef.	Tracy, Minn.		N. H. Winchell, No. ft. 24, depth 611.
6507	May, 1886.	Geol. Survey.	Dark unctuous, fine clay.	Indef.	Tracy, Minn.		N. H. Winchell, No. ft. 8, depth 617.
6508	May, 1886.	Geol. Survey.	White, kaolinic clay.	Indef.	Tracy, Minn.		N. H. Winchell, No. ft. 10, depth 627.
6509	May, 1886.	Geol. Survey.	White and gray quartz sand.	Indef.	Tracy, Minn.		N. H. Winchell, No. ft. 25, depth 662.
6510	May, 1886.	Geol. Survey.	Same, but w some kaolinic m'l.	Indef.	Tracy, Minn.		N. H. Winchell, No. ft. 2, depth 664.
6511	May, 1886.	Geol. Survey.	White kaolin, with blue clay.	Indef.	Tracy, Minn.		N. H. Winchell, No. ft. 2, depth 666.
6512	May, 1886.	Geol. Survey.	White angular quartz sand.	Indef.	Tracy, Minn.		N. H. Winchell, No. ft. 8, depth 672.
6513	May, 1886.	Geol. Survey.	Same as last.	Indef.	Tracy, Minn.		N. H. Winchell, No. ft. 18, depth 690.
6514	May, 1886.	Geol. Survey.	Same, but finer.	Indef.	Tracy, Minn.		N. H. Winchell, No. ft. 25, depth 715.
6515	May, 1886.	Geol. Survey.	White sand w some kaolinic m'l.	Indef.	Tracy, Minn.		N. H. Winchell, No. ft. 2118 ft.
6516	May, 1886.	Geol. Survey.	Reddish orthoclastic granite.	Indef.	Tracy, Minn.		N. H. Winchell, No. ft. 24, depth 611.
6517	May, 1886.	Geol. Survey.	Drillings from Lakewood Cem'try well.	Indef.	Tracy, Minn.		N. H. Winchell, No. ft. 8, depth 627.
6518	May, 1886.	Presented.	Trochus missouriensis (sw).	1	Minneapolis, Minn.		N. H. Winchell, No. ft. 2, depth 664.
6520	Oct., 1886.	A. F. Bechdolt.	Fossil leaves.	29	Kansas City, Mo.	Coal meas.	N. H. Winchell, No. ft. 18, depth 690.
6521	Oct., 1886.	A. F. Bechdolt.	Quercus Winchellii sp. nov.		"		N. H. Winchell, No. ft. 25, depth 715.
6522	Oct., 1886.	A. F. Bechdolt.	Hamamelites latifolius sp. nov.		"		N. H. Winchell, No. ft. 24, depth 611.
6523	Oct., 1886.	A. F. Bechdolt.	Cratogeus Wyomingiana, Lesq.		"		N. H. Winchell, No. ft. 8, depth 627.
6524	Oct., 1886.	A. F. Bechdolt.	Artocarpidium intermedium sp. nov.		"		N. H. Winchell, No. ft. 10, depth 627.
6525	Oct., 1886.	A. F. Bechdolt.	Ficus producta sp. nov.		"		N. H. Winchell, No. ft. 25, depth 662.
6526	Oct., 1886.	A. F. Bechdolt.	Hamamelites latifolius and seed of		"		N. H. Winchell, No. ft. 2, depth 664.
6527	Oct., 1886.	A. F. Bechdolt.	Quercus ettinghausii sp. nov.		"		N. H. Winchell, No. ft. 8, depth 672.
6528	Oct., 1886.	A. F. Bechdolt.	Cornus forshammeri Heer.		"		N. H. Winchell, No. ft. 18, depth 690.
6529	Oct., 1886.	A. F. Bechdolt.	Ficus dura sp. nov.		"		N. H. Winchell, No. ft. 25, depth 715.
6530	Oct., 1886.	A. F. Bechdolt.	Diospyros, calix of fruit.		"		N. H. Winchell, No. ft. 24, depth 690.
6531	Oct., 1886.	A. F. Bechdolt.	Viburnum heerii sp. nov.		"		N. H. Winchell, No. ft. 25, depth 715.
6532	Oct., 1886.	A. F. Bechdolt.	Cornus? specis undeterminable.		"		N. H. Winchell, No. ft. 24, depth 690.
6533	Oct., 1886.	A. F. Bechdolt.	Seed of Viburnum.		"		N. H. Winchell, No. ft. 25, depth 715.
6534	Oct., 1886.	A. F. Bechdolt.	Apelopsis grandifolia sp. nov.		"		N. H. Winchell, No. ft. 24, depth 690.
6535	Oct., 1886.	A. F. Bechdolt.	Seed of Viburnum? heerii? sp. nov.		"		N. H. Winchell, No. ft. 25, depth 715.
6537	Sept., 1885.	H. B. Griffin.	Concretion.	1	Long Lake, Hennepin Co.	Cret.	N. H. Winchell, No. ft. 25, depth 715.



## SPECIMENS REGISTERED IN THE GENERAL MUSEUM IN 1887-88.—(Continued.)

Serial No.	OBTAINED.		NAME.	Number of Specimen.	LOCALITY.	Formation.	COLLECTOR AND REMARKS.
	When.	Whence.					
6538	Sept., 1887	J. W. Bird	Wood	1	Martin Co., Minn.	Drift	From a well 68 feet below surface.
6539	Sept., 1887	Hon. C. E. Little	Muscovite	1	Grafton, N. H.	Drift	Presented.
6540	Sept., 1887	Rev. G. H. Trabant	Agate conglomerate	1	Dahuth, Minn.	Drift	Presented. From a boulder.
6541	Sept., 1887	York Iron Co.	Charcoal	1	Black River Falls		Presented.
6542	Sept., 1887	Exchange	Nickeliferous jasper	1	Riddle, Doug's Co., Or		From Wm. Q. Brown.
6543	Sept., 1887	Geol. Survey	Iron and copper	1	Tower, Minn.		H. V. Winchell.
6544	Sept., 1887	Geol. Survey	Hematite in quartz	1	Tower, Minn.		H. V. Winchell.
6545	Sept., 1887	Geol. Survey	Hematite crystals	4	Tower, Minn.		H. V. Winchell.
6546	Sept., 1887	Geol. Survey	Hematite	1	Tower, Minn.		H. V. Winchell.
6547	Sept., 1887	Geol. Survey	Red jasper conglomerate	1	Shores of Rainy Lake	Drift	H. V. Winchell.
6548	Sept., 1887	Geol. Survey	Coarse hornblende quartz	1	Winbigoshish dam		H. V. Winchell.
6549	Sept., 1887	Geol. Survey	Sand	1	Rainy Lake		H. V. Winchell.
6550	Sept., 1887	Geol. Survey	Iron from furnace	1	Black River Falls		From a boulder.
6551	Nov., 1887	Geol. Survey	Hinckley sandstone	1	Cattle River quarry		H. H. Winchell.
6552	Jan., 1888	Geol. Survey	Coarse syenite	2	Red Wing	Potsdam	N. H. Winchell.
6553	Feb., 1888	Presented	Conocephalites hamulus, Hall	2	Winona, Minn.	Drift	From Dr. G. A. Newman.
6554	Feb., 1888	Presented	Platyceras minutissimus (Wal.)	3	Marine Mills, Minn.	Silurian	From W. A. Finkelnburg.
6555	Feb., 1888	Presented	Bellerophon antiquus (Wal.)	2	Oscola, Wis.	Silurian	From W. A. Finkelnburg.
6556	Feb., 1888	Presented	Lingulepis pinniformis, Owen	3	Taylor's Falls, Minn.	Silurian	From W. A. Finkelnburg.
6557	Feb., 1888	Presented	Lingulepis pinniformis	3	Taylor's Falls, Minn.	Silurian	From W. A. Finkelnburg.
6558	Feb., 1888	Presented	Obolella polita, Hall	4	Dresbach, Minn.	Silurian	From W. A. Finkelnburg.
6559	Feb., 1888	Presented	Chariocephalus whiffeldi, Hall	2	Wis. opol., Winona, M.	Silurian	From W. A. Finkelnburg.
6560	Feb., 1888	Presented	Dikelocephalus oscola (Hall)	1	Oscola Mills, Wis.	Silurian	From W. A. Finkelnburg.
6561	Feb., 1888	Presented	Dikelocephalus oscola	1	Oscola Mills, Wis.	Silurian	From W. A. Finkelnburg.
6562	Feb., 1888	Presented	Conocephalites minoris Stum	3	Marine Mills, Minn.	Silurian	From W. A. Finkelnburg.
6563	Feb., 1888	Presented	Conocephalites Oweni Hall	4	Marine Mills, Minn.	Silurian	From W. A. Finkelnburg.
6564	Feb., 1888	Presented	Ilanurus quadratus, Hall	2	Oscola Mills, Wis.	Silurian	From W. A. Finkelnburg.
6565	Feb., 1888	Presented	Ilanurus quadratus	3	Oscola Mills, Wis.	Silurian	From W. A. Finkelnburg.
6566	Feb., 1888	Presented	Ilanurus quadratus	2	Oscola Mills, Wis.	Silurian	From W. A. Finkelnburg.
6567	Feb., 1888	Presented	Palaeomea minnekaensis, Wal	8	Minneka, Minn.	Silurian	From W. A. Finkelnburg.
6568	Feb., 1888	Presented	Felsyte	1	Sec. 17, T. 33, R. 5 (E), Mo		From Erasmus Haworth.
6569	Feb., 1888	Exchange	Quartz-porphry	1	Sec. 9, T. 33, R. 5, Mo		Orig. No. 316
6570	Feb., 1888	Exchange	Quartz-porphry	1	Sec. 16, T. 33, R. 5, Mo		Orig. No. 317
6571	Feb., 1888	Exchange	Quartz-orthoclase-porphry	1	Sec. 16, T. 33, R. 5, Mo		Orig. No. 318
6572	Feb., 1888	Exchange	Quartz-orthoclase-porphry	1	Sec. 9, T. 33, R. 5, Mo		Orig. No. 319
6573	Feb., 1888	Exchange	Granite	1	Missouri		From Erasmus Haworth.
6574	Feb., 1888	Exchange	Quartz-porphry	1	Missouri		Orig. No. 320
6575	Feb., 1888	Exchange	Quartz-porphry	1	Missouri		Orig. No. 321



6582	Feb., 1888.	Exchange.	Quartz-ironstone.	1	Sec. 9, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 322
6583	Feb., 1888.	Exchange.	Quartz-porphry.	1	Sec. 9, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 323
6584	Feb., 1888.	Exchange.	Quartz-porphry.	1	Sec. 18, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 324
6585	Feb., 1888.	Exchange.	Quartz-porphry.	1	Sec. 9, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 325
6586	Feb., 1888.	Exchange.	Granite.	1	Sec. 11, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 326
6587	Feb., 1888.	Exchange.	Granite.	1	Sec. 9, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 327
6588	Feb., 1888.	Exchange.	Quartz-orthoclase.	1	Sec. 20, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 328
6589	Feb., 1888.	Exchange.	Porphyry-orthoclase.	1	Sec. 29, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 329
6590	Feb., 1888.	Exchange.	Porphyry-orthoclase.	1	Sec. 21, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 330
6591	Feb., 1888.	Exchange.	Porphyry-orthoclase.	1	Sec. 28, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 331
6592	Feb., 1888.	Exchange.	Orthoclase-porphry.	1	Sec. 29, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 332
6593	Feb., 1888.	Exchange.	Quartz-orthoclase-porphry.	1	Sec. 32, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 333
6594	Feb., 1888.	Exchange.	Altered diorite (?).	1	Sec. 32, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 334
6595	Feb., 1888.	Exchange.	Chert.	1	Sec. 32, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 335
6596	Feb., 1888.	Exchange.	Quartz-porphry.	1	Sec. 32, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 336
6597	Feb., 1888.	Exchange.	Quartz-porphry.	1	Sec. 31, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 337
6598	Feb., 1888.	Exchange.	Quartz-porphry.	1	Sec. 31, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 338
6599	Feb., 1888.	Exchange.	Quartz-porphry.	1	Sec. 6, T. 32, R. 5, Mo.	From Erasmus Haworth, Orig. No. 339
6600	Feb., 1888.	Exchange.	Orthoclase-porphry.	1	Sec. 6, T. 32, R. 5, Mo.	From Erasmus Haworth, Orig. No. 340
6601	Feb., 1888.	Exchange.	Diabase.	1	Sec. 16, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 341
6602	Feb., 1888.	Exchange.	Quartz-orthoclase-porphry.	1	Sec. 16, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 342
6603	Feb., 1888.	Exchange.	Orthoclase-porphry.	1	Sec. 16, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 343
6604	Feb., 1888.	Exchange.	Granite.	1	Sec. 16, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 344
6605	Feb., 1888.	Exchange.	Quartz-porphry.	1	Sec. 17, T. 33, R. 6, Mo.	From Erasmus Haworth, Orig. No. 345
6606	Feb., 1888.	Exchange.	Diabase.	1	Sec. 17, T. 33, R. 6, Mo.	From Erasmus Haworth, Orig. No. 346
6607	Feb., 1888.	Exchange.	Quartz-porphry.	1	Sec. 17, T. 33, R. 6, Mo.	From Erasmus Haworth, Orig. No. 347
6608	Feb., 1888.	Exchange.	Diabase.	1	Sec. 17, T. 33, R. 6, Mo.	From Erasmus Haworth, Orig. No. 348
6609	Feb., 1888.	Exchange.	Quartz-porphry.	1	Sec. 19, T. 33, R. 6, Mo.	From Erasmus Haworth, Orig. No. 349
6610	Feb., 1888.	Exchange.	Quartz-porphry.	1	Sec. 19, T. 33, R. 6, Mo.	From Erasmus Haworth, Orig. No. 350
6611	Feb., 1888.	Exchange.	Quartz-porphry.	1	Sec. 19, T. 33, R. 6, Mo.	From Erasmus Haworth, Orig. No. 351
6612	Feb., 1888.	Exchange.	Quartz-porphry.	1	Sec. 5, T. 32, R. 5, Mo.	From Erasmus Haworth, Orig. No. 352
6613	Feb., 1888.	Exchange.	Quartz-porphry.	1	.....	From Erasmus Haworth, Orig. No. 353
6614	Feb., 1888.	Exchange.	Quartz-porphry.	1	.....	From Erasmus Haworth, Orig. No. 354
6615	Feb., 1888.	Exchange.	Quartz-porphry.	1	.....	From Erasmus Haworth, Orig. No. 355
6616	Feb., 1888.	Exchange.	Quartz-porphry.	1	.....	From Erasmus Haworth, Orig. No. 356
6617	Feb., 1888.	Exchange.	Quartz-porphry.	14	.....	From Erasmus Haworth, Orig. No. 357
6618	Feb., 1888.	Exchange.	Duplicate samples	1	.....	From Erasmus Haworth, Orig. No. 358
6619	Feb., 1888.	Exchange.	Altered diabase (?).	1	Sec. 4, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 359
6620	Feb., 1888.	Exchange.	Quartz-porphry.	1	Sec. 14, T. 33, R. 6, Mo.	From Erasmus Haworth, Orig. No. 360
6621	Feb., 1888.	Exchange.	Quartz-porphry.	1	Sec. 14, T. 33, R. 6, Mo.	From Erasmus Haworth, Orig. No. 361
6622	Feb., 1888.	Exchange.	Quartz-porphry.	1	Sec. 18, T. 33, R. 6, Mo.	From Erasmus Haworth, Orig. No. 362
6623	Feb., 1888.	Exchange.	Granite.	1	Sec. 4, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 363
6624	Feb., 1888.	Exchange.	Granite.	1	Sec. 3, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 364
6625	Feb., 1888.	Exchange.	Diabase.	1	Sec. 3, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 365
6626	Feb., 1888.	Exchange.	Diabase-porphry.	1	Sec. 10, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 366
6627	Feb., 1888.	Exchange.	Granite.	1	Sec. 10, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 367
6628	Feb., 1888.	Exchange.	Granite.	1	Sec. 11, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 368
6629	Feb., 1888.	Exchange.	Quartz-porphry.	1	Sec. 11, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 369
6630	Feb., 1888.	Exchange.	Diabase.	1	Sec. 14, T. 33, R. 5, Mo.	From Erasmus Haworth, Orig. No. 370

## SPECIMENS REGISTERED IN THE GENERAL MUSEUM IN 1887-88.— (Continued.)

Serial No.	OBTAINED.		NAME.	Number of Specimens.	LOCALITY.	FORMATION.	COLLECTOR AND REMARKS.
	When.	Whence.					
6630	Feb., 1888	Exchange.	Granite.....	1	Sec.14, T.33, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 371
6631	Feb., 1888	Exchange.	Quartz-porphry.....	1	Sec.14, T.33, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 372
6632	Feb., 1888	Exchange.	Decomposed conglomerate.....	1	Sec.13, T.33, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 373
6633	Feb., 1888	Exchange.	Quartz-porphry.....	1	Sec.13, T.33, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 374
6634	Feb., 1888	Exchange.	Quartz-orthoclase-porphry.....	1	Sec.13, T.33, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 375
6635	Feb., 1888	Exchange.	Quartz-orthoclase-porphry.....	1	Sec.24, T.33, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 376
6636	Feb., 1888	Exchange.	Diabase.....	1	Sec.25, T.33, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 377
6637	Feb., 1888	Exchange.	Quartz-orthoclase-porphry.....	1	Sec.25, T.33, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 378
6638	Feb., 1888	Exchange.	Quartz-orthoclase-porphry.....	1	Sec.26, T.33, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 379
6639	Feb., 1888	Exchange.	Quartz-orthoclase-porphry.....	1	Sec.35, T.33, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 380
6640	Feb., 1888	Exchange.	Quartz-orthoclase-porphry.....	1	Sec.3, T.32, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 381
6641	Feb., 1888	Exchange.	Quartz-porphry.....	1	Sec.3, T.32, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 382
6642	Feb., 1888	Exchange.	Quartz-orthoclase-porphry.....	1	Sec.10, T.32, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 383
6643	Feb., 1888	Exchange.	Plagioclase-porphry.....	1	Sec.16, T.32, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 384
6644	Feb., 1888	Exchange.	Plagioclase-porphry.....	1	Sec.21, T.32, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 385
6645	Feb., 1888	Exchange.	Plagioclase-porphry.....	1	Sec.21, T.32, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 386
6646	Feb., 1888	Exchange.	Plagioclase-porphry.....	1	.....	.....	From Erasmus Haworth, Orig. No. 387
6647	Feb., 1888	Exchange.	Altered diabase.....	1	.....	.....	From Erasmus Haworth, Orig. No. 388
6648	Feb., 1888	Exchange.	Plagioclase-porphry.....	1	.....	.....	From Erasmus Haworth, Orig. No. 389
6649	Feb., 1888	Exchange.	Plagioclase-porphry.....	1	.....	.....	From Erasmus Haworth, Orig. No. 390
6650	Feb., 1888	Exchange.	Plagioclase-porphry.....	1	Sec.17, T.32, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 391
6651	Feb., 1888	Exchange.	Plagioclase-porphry.....	1	Sec.20, T.32, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 392
6652	Feb., 1888	Exchange.	Plagioclase-porphry.....	1	Sec.18, T.32, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 393
6653	Feb., 1888	Exchange.	Marble.....	1	Sec.19, T.32, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 394
6654	Feb., 1888	Exchange.	Limestone.....	1	Sec.7, T.32, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 395
6655	Feb., 1888	Exchange.	Quartzite.....	1	Sec.7, T.32, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 396
6656	Feb., 1888	Exchange.	Quartz-porphry.....	1	Sec.8, T.32, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 397
6657	Feb., 1888	Exchange.	Orthoclase-porphry.....	1	Sec.8, T.32, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 398
6658	Feb., 1888	Exchange.	Orthoclase-porphry.....	1	Sec.30, T.32, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 399
6659	Feb., 1888	Exchange.	Orthoclase-porphry.....	1	Sec.30, T.32, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 400
6660	Feb., 1888	Exchange.	Orthoclase-porphry.....	1	Sec.19, T.32, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 401
6661	Feb., 1888	Exchange.	Orthoclase-porphry.....	1	Sec.15, T.32, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 402
6662	Feb., 1888	Exchange.	Orthoclase-porphry.....	1	Sec.14, T.32, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 403
6663	Feb., 1888	Exchange.	Plagioclase-porphry.....	1	Sec.23, T.32, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 404
6664	Feb., 1888	Exchange.	Plagioclase-porphry.....	1	Sec.23, T.32, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 405
6665	Feb., 1888	Exchange.	Altered diabase.....	1	Sec.25, T.32, R.5, Mo.	.....	From Erasmus Haworth, Orig. No. 406
			Plagioclase-porphry.....	1	.....	.....	From Erasmus Haworth, Orig. No. 406

6665	Feb., 1888.	Exchange.	Plagioclase-porphry.	1	Mo.	From Erasmus Haworth, Orig. No. 407
6667	Feb., 1888.	Exchange.	Epidote-porphry.	1	Mo.	From Erasmus Haworth, Orig. No. 408
6668	Feb., 1888.	Exchange.	Quartz-orthoclase-porphry.	1	Mo.	From Erasmus Haworth, Orig. No. 409
6669	Feb., 1888.	Exchange.	Quartz-orthoclase-porphry.	1	Mo.	From Erasmus Haworth, Orig. No. 410
6670	Feb., 1888.	Exchange.	Diabase.	1	Mo.	From Erasmus Haworth, Orig. No. 411
6671	Feb., 1888.	Exchange.	Orthoclase-porphry.	1	Mo.	From Erasmus Haworth, Orig. No. 412
6672	Feb., 1888.	Exchange.	Orthoclase-porphry.	1	Mo.	From Erasmus Haworth, Orig. No. 413
6673	Feb., 1888.	Exchange.	Diabase.	1	Mo.	From Erasmus Haworth, Orig. No. 414
6674	Feb., 1888.	Exchange.	Diabase.	1	Mo.	From Erasmus Haworth, Orig. No. 415
6675	Feb., 1888.	Exchange.	Diabase.	1	Mo.	From Erasmus Haworth, Orig. No. 416
6676	Feb., 1888.	Exchange.	Rewdankite (?).	1		From W. Q. Brown.
6677	Feb., 1888.	Exchange.	Garnierite and serpentine.	1		From W. Q. Brown.
6678	Feb., 1888.	Exchange.	Chrysoprase.	1		From W. Q. Brown.
6679	Feb., 1888.	Exchange.	Garnierite (soft).	1		From W. Q. Brown.
6680	Feb., 1888.	Exchange.	Garnierite and chromic iron.	1		From W. Q. Brown.
6681	Feb., 1888.	Presented.	Copper ore.	1		From J. L. Vivian.
6682	Feb., 1888.	Presented.	Geyselite.	Indel.		From J. H. Udden.
6683	April, 1888.	Presented.	Pentameris oblongus, Saw	2	Niagara.	From W. S. Hoskinson.
6684	April, 1888.	Exchange.	Zaphrentis.	2	Dev. Corn.	From W. S. Hoskinson.
6685	April, 1888.	Exchange.	Zaphrentis.	2	Clinton.	From W. S. Hoskinson.
6686	April, 1888.	Exchange.	Orthocerata.	2	Clinton.	From W. S. Hoskinson.
6687	April, 1888.	Exchange.	Orthocerata.	1	U. H. dn riv	From W. S. Hoskinson.
6688	April, 1888.	Exchange.	Orthocerata.	1	Springfield, Ohio.	From W. S. Hoskinson.
6689	April, 1888.	Exchange.	Cyathophylloid.	3	Niagara.	From W. S. Hoskinson.
6690	April, 1888.	Exchange.	Cyathophylloid.	1	Dev. Corn.	From W. S. Hoskinson.
6691	April, 1888.	Exchange.	Strophodontia-hemispherica.	1	Niagara.	From W. S. Hoskinson.
6692	April, 1888.	Exchange.	Strophodontia-rhomboidalis.	2	Clinton.	From W. S. Hoskinson.
6693	April, 1888.	Exchange.	Strophodontia-rhomboidalis.	2	Clinton.	From W. S. Hoskinson.
6694	April, 1888.	Exchange.	Strophodontia-rhomboidalis.	4	Clinton.	From W. S. Hoskinson.
6695	April, 1888.	Exchange.	Strophodontia-rhomboidalis.	4	Clinton.	From W. S. Hoskinson.
6696	April, 1888.	Exchange.	Strophodontia-rhomboidalis.	4	Clinton.	From W. S. Hoskinson.
6697	April, 1888.	Exchange.	Strophodontia-rhomboidalis.	2	Clinton.	From W. S. Hoskinson.
6698	April, 1888.	Exchange.	Strophodontia-rhomboidalis.	2	Clinton.	From W. S. Hoskinson.
6699	April, 1888.	Exchange.	Strophodontia-rhomboidalis.	2	Clinton.	From W. S. Hoskinson.
6700	April, 1888.	Exchange.	Strophodontia-rhomboidalis.	1	Clinton.	From W. S. Hoskinson.
6701	April, 1888.	Exchange.	Strophodontia-rhomboidalis.	1	Clinton.	From W. S. Hoskinson.
6702	April, 1888.	Exchange.	Strophodontia-rhomboidalis.	3	Niagara.	From W. S. Hoskinson.
6703	April, 1888.	Exchange.	Strophodontia-rhomboidalis.	2	Niagara.	From W. S. Hoskinson.
6704	April, 1888.	Exchange.	Strophodontia-rhomboidalis.	2	Clinton.	From W. S. Hoskinson.
6705	April, 1888.	Exchange.	Strophodontia-rhomboidalis.	8	Clinton.	From W. S. Hoskinson.
6706	April, 1888.	Exchange.	Strophodontia-rhomboidalis.	1	Clinton.	From W. S. Hoskinson.
6707	April, 1888.	Exchange.	Strophodontia-rhomboidalis.	1	Clinton.	From W. S. Hoskinson.
6708	April, 1888.	Exchange.	Strophodontia-rhomboidalis.	1	Clinton.	From W. S. Hoskinson.
6709	April, 1888.	Exchange.	Strophodontia-rhomboidalis.	1	Clinton.	From W. S. Hoskinson.
6710	April, 1888.	Exchange.	Strophodontia-rhomboidalis.	1	Clinton.	From W. S. Hoskinson.
6711	April, 1888.	Exchange.	Strophodontia-rhomboidalis.	1	Clinton.	From W. S. Hoskinson.
6712	April, 1888.	Exchange.	Strophodontia-rhomboidalis.	4	Clinton.	From W. S. Hoskinson.
6713	April, 1888.	Exchange.	Strophodontia-rhomboidalis.	2	Clinton.	From W. S. Hoskinson.



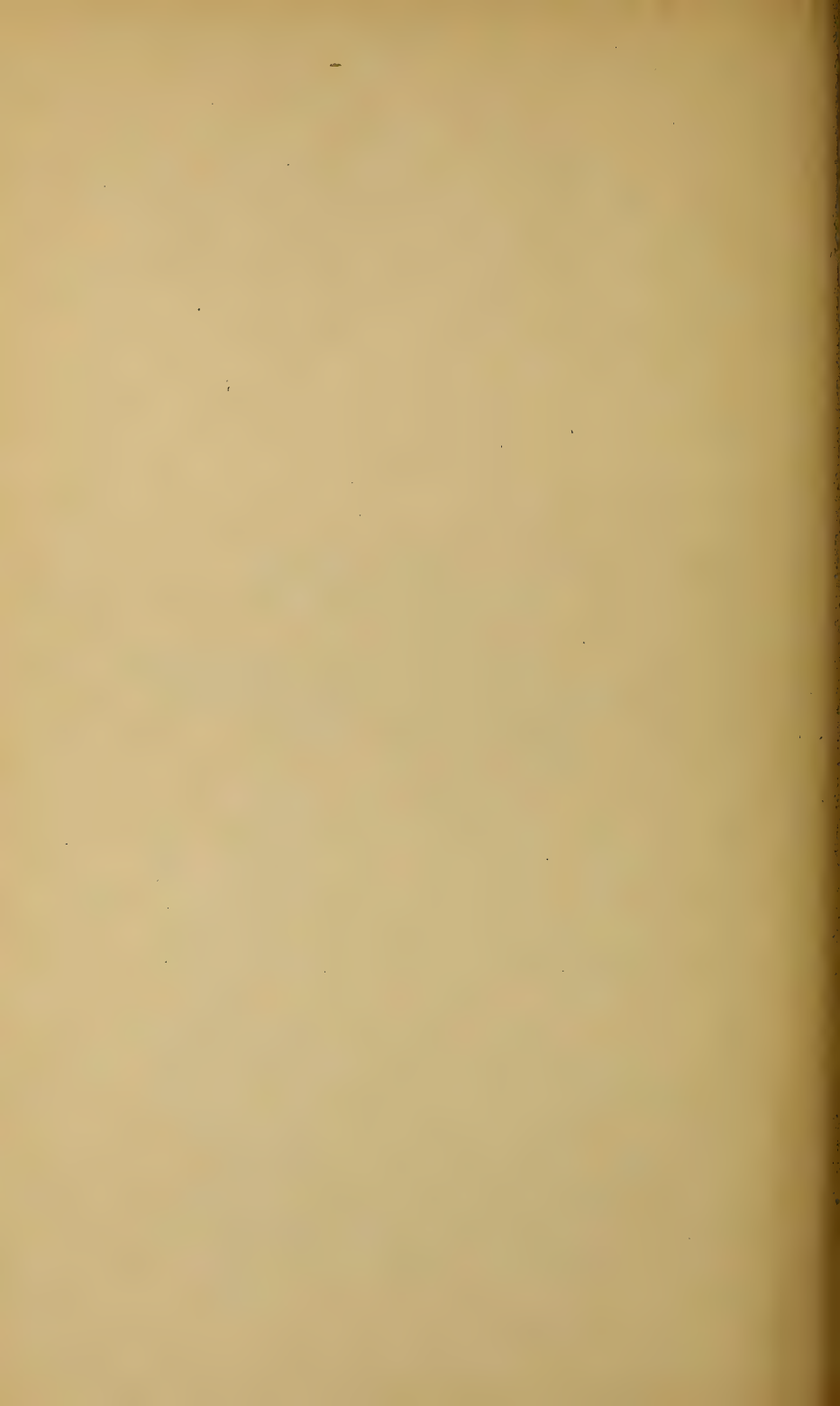
## SPECIMENS REGISTERED IN THE GENERAL MUSEUM IN 1887-88.—(Concluded.)

Serial No.	OBTAINED.		NAME.	Number of Specimens.	LOCALITY.	FORMA- TION.	COLLECTOR AND REMARKS.
	When.	Whence.					
6714	April, 1888.	Exchange.	<i>Platystoma niagarensis</i> .	6	Waldron, Ind.	.....	From W. S. Hoskinson.
6715	April, 1888.	Exchange.	<i>Eichwaldia reticulata</i> .	2	Waldron, Ind.	Niagara.	From W. S. Hoskinson.
6716	April, 1888.	Exchange.	<i>Zygospira modesta</i> .	3	Miamisburg, O.	.....	From W. S. Hoskinson.
6717	April, 1888.	Exchange.	<i>Leptæna sericea</i> .	3	Miamisburg, O.	Up. Hud. R.	From W. S. Hoskinson.
6718	April, 1888.	Exchange.	<i>Protæra vetusta</i> , Hall.	2	Miamisburg, O.	.....	From W. S. Hoskinson.
6719	April, 1888.	Exchange.	<i>Murchisonia bellicincta</i> .	2	Miamisburg, O.	.....	From W. S. Hoskinson.
6720	April, 1888.	Exchange.	<i>Cyclonema bilix</i> .	1	Miamisburg, O.	.....	From W. S. Hoskinson.
6721	April, 1888.	Exchange.	<i>Pleuronomaria tropidophora</i> .	2	Miamisburg, O.	Up. Hud. R.	From W. S. Hoskinson.
6722	April, 1888.	Exchange.	<i>Orthis sinuata</i> .	2	Miamisburg, O.	.....	From W. S. Hoskinson.
6723	April, 1888.	Exchange.	<i>Orthis subquadrata</i> .	9	Miamisburg, O.	.....	From W. S. Hoskinson.
6724	April, 1888.	Exchange.	<i>Orthis lynx</i> .	4	Miamisburg, O.	.....	From W. S. Hoskinson.
6725	April, 1888.	Exchange.	<i>Orthis fausta</i> .	5	Miamisburg, O.	.....	From W. S. Hoskinson.
6726	April, 1888.	Exchange.	<i>Streptorhynchus sulcatus</i> .	1	New Carlisle, O.	Clinton.	From W. S. Hoskinson.
6727	April, 1888.	Exchange.	<i>Streptorhynchus planumbonus</i> .	1	Miamisburg, O.	Up. Hud. R.	From W. S. Hoskinson.
6728	April, 1888.	Exchange.	<i>Streptorhynchus nutans</i> .	1	Miamisburg, O.	.....	From W. S. Hoskinson.
6729	April, 1888.	Exchange.	<i>Strophomena alternata</i> .	3	Miamisburg, O.	.....	From W. S. Hoskinson.
6730	April, 1888.	Exchange.	<i>Strophomena alternata</i> .	2	Miamisburg, O.	.....	From W. S. Hoskinson.
6731	May, 1888.	Presented.	{ Pseudomorph of magnetite and py- rite after garnet.	1	Negaunee, Mich.	.....	From N. H. Winchell.
6732	May, 1888.	Presented.	Rock 60 feet from surface.	4	Little Falls, Minn.	.....	From N. H. Winchell, at L. F's Brew'y.
6733	May, 1888.	Presented.	Pyrite from blue till.	1	Minnesota.	Drift.	From N. H. Winchell.
6734	May, 1888.	Presented.	Pseudomorph hematite.	1	Marquette I., Mich.	.....	From N. H. Winchell.
6735	May, 1888.	Exchange.	Tin ore.	1	Pennington Co., Dak.	.....	From Sam. Scott, Morgan's Tin Mine.
6736	May, 1888.	Exchange.	Greisen rock.	1	Pennington Co., Dak.	.....	From Sam. Scott, Everly Tin Mine.
6737	May, 1888.	Exchange.	Spodumene.	1	Pennington Co., Dak.	.....	From Sam. Scott, Etta Tin Mine.
6738	May, 1888.	Exchange.	Rose quartz.	1	Pennington Co., Dak.	.....	From Sam. Scott, Red Rose Mine.
6739	May, 1888.	Exchange.	Albite.	1	Pennington Co., Dak.	.....	From Sam. Scott, Etta Tin Mine.
6740	May, 1888.	Presented.	Albite.	2	Amelia Co., Va.	.....	G. L. English & Co., Amelia C't House.
6741	May, 1888.	Presented.	<i>Lingula acuminata</i> .	1	New York.	Medina Sand.	From Cyrus R. Stetzer.
6770	Aug., 1888.	Presented.	Piece of cedar wood.	1	Near Camden, Minn.	Drift.	From Mrs. M. J. Wilkin.
6824	Oct., 1888.	Presented.	Minerals from Mt Vesuvius.	12	Italy.	.....	From Miss M. L. Sanford.
6825	Oct., 1888.	Presented.	Incrustation on gneiss.	1	Near Swarthmore col., Pa.	.....	Prof. J. Breda (From the edge of a gla-
6826	Oct., 1888.	Presented.	Meerschaum.	1	Norway.	.....	cier below Sultind, Norway.)
6827	Oct., 1888.	Presented.	Lignite.	1	St. Paul, Minn.	Drift.	Prof. N. H. Winchell.



VI.

APPENDIX.—LIST OF RECENT GEOLOGICAL  
PUBLICATIONS RELATING TO THE  
CRYSTALLINE ROCKS.



## VI.

### LIST OF AMERICAN PUBLICATIONS BETWEEN 1872 AND 1889 THAT HAVE SOME RELATION TO THE CRYSTALLINE ROCKS OF THE NORTHWEST.

This list of publications, while embracing most of those issued since 1872 bearing on the crystalline rocks of Minnesota, or of the Northwest, is not presumed to be complete, and it is desired that geologists who discover omissions will communicate with the writer in order that, in a future report, such additions may be made as will make the list perfect.

The list of papers and other publications prepared by Whitney & Wadsworth and published in the *Bulletin of the Museum of Comparative Zoology*, Cambridge (Geol. Series, Vol. I.), carried the record up to 1880. By the aid of that, and with the assistance of Mr. Geo. H. Barton, of the Institute of Technology, Boston, who examined some serial publications that could not be consulted at Minneapolis, the catalogue may be considered to embrace most of the publications of American geologists on the crystalline rocks of the central and eastern portions of the United States and of Canada, between 1872 and 1889. There are, however, some important serials that have not been consulted.

### 1873.

#### **BELL, ROBT.**

Report on the country between lake Superior and lake Winnipeg. Geol. Sur. of Can., Report of Progress. Montreal, 1872-73, pp. 87-111.

#### **BROOKS, T. B.**

Geological Survey of Michigan, with maps, 1869-73, i.; Part I., Iron-bearing Rocks, 319 pp.; Part II., Copper-bearing Rocks, R. Pumpelly and A. R. Marvine, 143 pp.; Part III., Palæozoic Rocks, Charles Rominger, 105 pp.; ii., 298 pp., contains papers by Messrs. Brooks, Julien, Wright, Jenney, and Tuttle.

#### **DANA, J. D.**

On the Quartzite, Limestone, and Associated Rocks of the vicinity of Great Barrington, Mass., Am. J. Sci., 3d Series, Vol. 5, pp. 47-53, 87-91; Vol. 6, pp. 257-278.  
Vol. III—30.

**FOSTER, J. W.**

Ancient Mining by the Mound-builders in the "Prehistoric Races of the United States." Chicago, 1873, pp. 361-374.

**HITCHCOCK, C. H.**

Classification of the Rocks of New Hampshire. Proc. Boston Soc. Nat. Hist., Vol. 15, pp. 304-307.

**HUNT, T. STERRY.**

The Geology of the North Shore of Lake Superior. (Supplementary Note.) Trans. Am. Inst. Min. Eng., 1873, ii., 58, 59.

**IRVING, ROLAND D.**

On some points in the Geology of Northern Wisconsin. Trans. Wisc. Acad. Sci., 1873-74, ii., 107-119.

**MARVINE, A. R.**

Geology of Michigan. Part II., 1873.

**NICHOLSON, H. ALLEYNE.**

On the Geology of the Thunder bay and Shabendowan Mining Districts on the North Shore of lake Superior. Quart. Jour. Geol. Soc., 1873, xxix., 17-24.

**PUMPELLE, RAPHAEL.**

The Paragenesis and Derivation of Copper and its Associates on lake Superior. Am. Jour. Sci., 1872 (3), iii., 188-198, 243-258, 347-353; Leonhard's Jahrbuch, 1872, pp. 538-540; Geol. of Michigan, Part II., 1873.

**SELWYN, ALFRED R. C.**

Notes of a Geological Reconnaissance from lake Superior to Fort Garry. Geol. Surv. of Canada, Report of Progress. Montreal, 1872-73, pp. 8-18.

**WHITTLESEY, CHARLES.**

On the cause of the Transient Fluctuations of Level in lake Superior. Proc. Am. Assoc. Adv. Sci., 1873, xxii., Part II., 42-46.

**WINCHELL, ALEXANDER.**

The Diagonal System in the Physical Features of Michigan. Am. Jour. Sci., 1873 (3), vi., 36-40.

**WINCHELL, N. H.**

Geological and Natural History Survey of Minnesota. First annual report, 113 pp.

**WING, A. T.**

Concerning the Spontaneous Movements and Fractures of Rock, at Quarry of W. N. Flynt, Monson, Mass. Proc. Bost. Soc. Nat. Hist., Vol. 16, pp. 41-42.

**1874.****ALLEN, J. A.**

Metamorphism Produced by the Burning of Lignite Beds in Dakota and Montana Territories. Proc. Boston Soc. Nat. Hist., Vol. 16, pp. 246-262.



**BROWN, A. J.**

The Formation of Fissures and the Origin of Their Mineral Contents.  
Trans. Am. Inst. Min. Eng., 1874, ii., 215-219.

**DANA, JAMES D.**

Manual of Geology, New York, 1st ed., 1862, 800 pp.; 2d ed., 1874, 828 pp.; 3d ed., 1880, 911 pp.

**DOUGLAS, JAMES.**

The Native Copper Mines of lake Superior. Quart. Jour. Sci., 1874, xi., 162-180; Canadian Nat. and Geol., 1874 (2), vii., 318-336.

**IRVING, ROLAND D.**

On the Age of the Copper-bearing Rocks of lake Superior; and on the Westward Continuation of the lake Superior Synclinal. Am. Jour. Sci., 1874 (3), viii., 46-56.

**LE CONTE, J. L.**

On Coracite, a new ore of Uranium. Am. Jour. Sci., 1874 (2), iii., 173-175.

**M'KELLAR, PETER.**

Mining on the North Shore of lake Superior. Toronto, 1874, 26 pp.

**NEWBERRY, J. S.**

The Iron Resources of the United States. International Review, 1874, ii., 754-780.

**NICHOLSON, H. ALLEYNE.**

On the Mining District on the North Shore of lake Superior. Trans. of North of England Inst. of Min. and Mech. Eng. Newcastle-on-Tyne, 1874-75, xxiv., 237-249, with maps.

**WHITTLESEY, CHARLES.**

Sudden Fluctuations of Level in Quiet Waters. Records of Observations. Proc. Am. Assoc. Adv. Sci., 1874, xxiii., 139-143.

**1875.****AKERMANN, H. W.**

Die Kupferführenden Schichten am lake Superior. Sitzungs-Berichte der naturwissenschaftlichen Gesellschaft Isis in Dresden, 1875, pp. 101-105.

**BELL, ROBERT.**

The Mineral Region of lake Superior. Canadian Nat. and Geol., 1875 (2), vii., 49-51.

**BLAKE, WILLIAM P.**

The Mass Copper of lake Superior Mines, and the Method of Mining it. Trans. Am. Inst. Mining Engineers, 1875, iv., 110-112.

**CHAPMAN, E. J.**

An Outline of the Geology of Ontario, based on a Subdivision of the Province into Six Natural Districts. Canadian Jour., 1875 (2), 580-588.

**CHESTER, ALBERT H.**

On the Percentage of Iron in Certain Ores. *Trans. Am. Inst. Min. Eng.*, 1875, iv., 219.

**DODGE, W. W.**

Notes on the Geology of Eastern Massachusetts. *Proc. Boston Soc. Nat. Hist.*, Vol. 17, pp. 388-419.

**HUNT, T. STERRY.**

The Decayed Gneiss of the Hoosac Mountains. *Ibid.*, Vol. 18, pp. 106-108.  
The Development of our Mineral Resources. *Harper's Magazine*, 1875, li., 82-94.

**PUMPELLE, RAPHAEL.**

On Pseudomorphs of Chlorite after Garnet at Spurr Mountain Iron Mine. *Am. Jour. Sci.*, 1875 (3), x., 17-21.

**SAUVAGE, E.**

Notice sur les Minerais de Fer du lac Supérieur. *Annales des Mines*, 1875 (7), viii., 1-35.

**WHITTLESEY, CHARLES.**

Physical Geology of lake Superior. *Proc. Am. Assoc. Adv. Sci.*, 1875, xxiv., 60-72.

**WINCHELL, N. H.**

The Geology of the Minnesota Valley. Second Report on the Geol. and Nat. Hist. Surv. of Minnesota, pp. 127-212.

**1876.****BELL, ROBERT.**

Report on an Exploration in 1875, between James bay and lakes Superior and Huron. *Geol. Surv. of Canada, Report of Progress*, 1875-76, pp. 294-342.

**BRADLEY, FRANK H.**

On a Geological Chart of the United States East of the Rocky Mountains and of Canada. *Am. Jour. Sci.*, 1876 (3), xii., 286-291.

**BROOKS, T. B.**

On the Youngest Huronian Rocks, South of lake Superior, and the Age of the Copper-bearing Series. *Am. Jour. Sci.*, 1876 (3), xi., 206-211.

Classified List of Rocks observed in the Huronian Series, south of lake Superior, etc. *Am. Jour. Sci.*, 1876 (3), xii., 194-204.

**BOUVÉ, T. T.**

On the Origin of Porphyry. *Proc. Boston Soc. Nat. Hist.*, Vol. 18, pp. 217-220.

**CHAPMAN, E. J.**

On the Leading Geological Areas of Canada. *Canadian Jour.*, 1876 (2), xv., 92-122.

**CREDNER, HERMANN.**

*Elemente der Geologie*. 1st ed., 1872; 2nd ed., 1872; 3rd ed., 1876; 690 pp., 4th ed., 1880.

**EGGLESTON, THOMAS.**

Boracic Acid in lake Superior Iron Ores. Trans. Am. Inst. Min. Eng., 1876, v., 131, 132.

**GEINITZ, H. B.**

Alexander Winchell: über geologische Verhältnisse in Michigan. Leonhard's Jahrbuch, 1876, pp. 438-440.

**HOUGHTON, JACOB, Jr.**

The Ancient Copper Miners of lake Superior. Iron, 1876 (N. S.), viii., 168, 169, 199; Swineford's Copper, Iron, and other Material Interests of lake Superior. Marquette, 1876, pp. 78-89.

**HUNT, T. STERRY.**

On the History of the Crystalline Stratified Rocks. A. A. A. S. Vol. 25, pp. 205-208.

**HYATT, ALPHEUS.**

Remarks upon above paper, and upon the Geology of Marblehead Neck. Proc. Bost. Soc. Nat. Hist., pp. 220-224.

**MCCRACKEN, S. B.**

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**ROMINGER, CHARLES.**

Observations on the Ontonagon Silver Mining Districts and Slate Quarries of Huron bay. Geol. Surv. of Michigan, 1876, iii., 153-166.

**SWEET, E. T.**

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**SWINEFORD, A. P.**

History and Review of the Copper, Iron, Silver, Slate, and other Material Interests of the South Shore of lake Superior. Marquette, Mich., 1876.

**WHITTLESEY, CHARLES.**

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**1877.****BELL, ROBERT.**

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The North Shore of lake Superior as a Mineral-bearing District. Trans. Am. Inst. Min. Eng., 1877, v., 473-487.

**EGGLESTON, THOMAS.**

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**ROLKER, CHARLES M.**

The Allouez Mine and Ore Dressing, as practiced in the lake Superior Copper District. *Trans. Am. Inst. Min. Eng.*, 1877, v., 584-606.

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**DANA, JAMES D.**

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**HUNT, T. STERRY.**

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**LE CONTE, JOSEPH.**

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**LAFLAMME, L'ABBÉ J. C.**

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**WRIGHT, CHARLES E.**

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**WINCHELL, N H.**

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**HALL, CHARLES E.**

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**WICHMANN, ARTHUR.**

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**1880.****BAILEY, L. W.**

On the progress of Geological Investigation in New Brunswick, 1870-1880. Proc. Am. Assoc. Ad. Sci., Vol. XXIX., pp. 415-421.

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**BELL, ROBERT.**

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**BENTON, E. R.**

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**CHAMBERLIN, T. C.**

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**CROSBY, W. O.**

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Contributions to the Geology of Eastern Massachusetts. *Occasional Papers. Boston Soc. Nat. Hist.* (3), 286 pp., with map.

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**DAVIS, W. M.**

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**DILLER, J. S.**

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**FORD, S. W.**

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**MARCOU, JULES.**

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